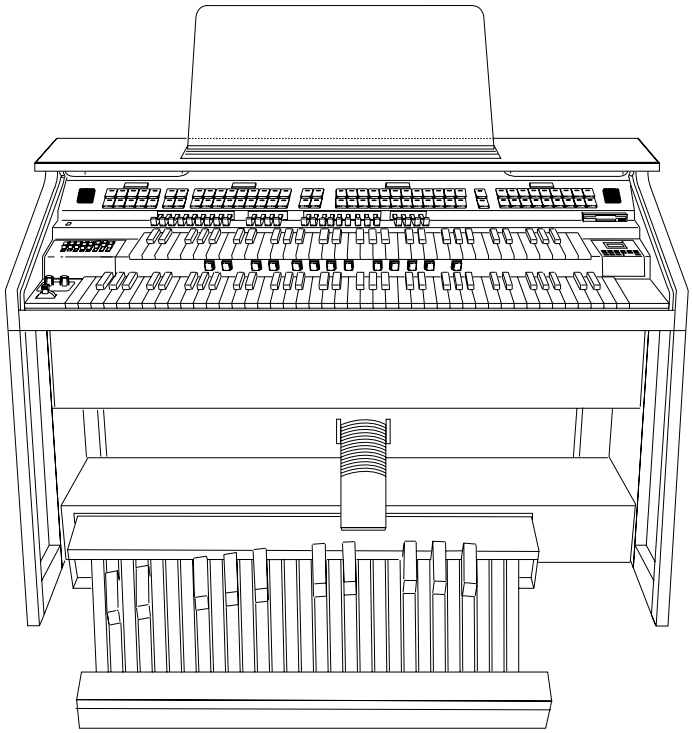
RODGERS®
INSTRUMENTS LLC

W-5000

Contemporary Keyboard

User's Guide



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

WARNING: When using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
8. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
9. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
10. The product should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled onto the product; or
    C. The product has been exposed to rain; or
    D. The product does not appear to operate normally or exhibits a marked change in performance; or
    E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond that described in the user/maintenance instructions. All other servicing should be referred to qualified service personnel.

This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpo

For the USA

For Canada

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter 'N' or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter 'L' or coloured RED.

INTRODUCTION

Thank you and congratulations on your choice of the Rodgers W-5000! The W-5000 is a contemporary keyboard instrument which combines the very best of current organ tone-generation and leading-edge synthesizer technology. As a players' instrument, the W-5000 will satisfy the needs of the most demanding professional, yet is easy enough to operate for the novice player to enjoy.

This User's Guide contains all of the 'nuts and bolts' of W-5000 operation. Refer to this guide when you need specific information about particular operations or functions. The W-5000 Quick Start guide, on the other hand, provides a very brief, step-by-step description of playing the instrument. If you want to get playing right away, work through the Quick Start guide. When you need more detailed information, however, the User's Guide is where you should look.

Note: This edition of the W-5000 User's Guide refers specifically to software version 2.970604. To determine which version of the operating software is currently installed in your W-5000, refer to Chapter 10 (Utility Parameters; Software Version).

Rodgers instruments are built in Hillsboro, Oregon, USA. Through the most advanced technology available, Rodgers Instruments LLC, a member of the Roland Group, delivers proven reliability, design innovation and a tradition of musical excellence. ***Rodgers ... The Sound Choice!***

FEATURES

- The W-5000 features a two-manual plus pedalboard design in the tradition of great players' instruments!
- Sounds are produced by three independent tone generators; a **Drawbar/Tone-Wheel generator** for contemporary organ sounds, a **Classic Organ generator** for church and
- classical organ sounds, and a **Synth generator** for synthesized instrument and percussion sounds.
- The W-5000 utilizes specially designed LED-lit Tone buttons and authentic drawbars to control the Tone-Wheel organ sounds.
- A 160 watt, multi-speaker sound system delivers full, rich sounds without any additional amplifiers or speakers. However, the W-5000's extensive output array can handle virtually any sound output configuration you might require.
- The W-5000 features full MIDI (Musical Instrument Digital Interface) capability, with the internal Synth generator available for control via an external instrument.
- The on-board disk drive can be used to record and playback your keyboard performances. The drive can also be used to play commercially available Standard MIDI File (SMF), General MIDI (GM), and Roland/Rodgers GS Format data (on 3.5" disks).

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CUSTOMER SUPPORT

The Customer Service Department of Rodgers Instruments LLC is available to answer any of your questions. Before you call, however, please try the following steps:

- Check your documentation
- Contact your local Rodgers dealer
- Call the Rodgers Field Service Department

If you are unable to resolve your problem, please feel free to call the Customer Service Department between the hours of 7:00 AM and 5:00 PM Pacific Time, Monday through Friday (excluding holidays). Weekend support hours are 5:00 to 9:00 PM Friday, 7:00 AM to 5:00 PM Saturday, 7:00 AM to 12:00 PM Sundays. Call (503) 648-4181 of fax (503) 681-6530. Before you call, please have the following information in front of you:

- Model number
- Serial number
- Date of installation
- A description of the problem and steps taken to correct it

RODGERS INSTRUMENTS LLC
1300 N.E. 25th Avenue
Hillsboro, OR 97124
Telephone: (503) 648-4181

CONVENTIONS USED IN THIS MANUAL

- Panel buttons are indicated within square brackets. For example; Press the [UTILITY] button in the FUNCTIONS section, and then the [+] button in the EDIT section.
- Whenever a panel button is pressed, the LCD will instantly display relevant information; a Program Number and name, a parameter name and setting value and so on. Generally, to navigate through the options and to set parameter values you will:

  Ê Press the relevant panel button.
  Ë Use the [NEXT] and [PREVIOUS] buttons in the EDIT section to select the desired parameter.
  Ì Use the [+] and [-] buttons in the EDIT section to set a numeric value (e.g. 0—127) or select an option (e.g. High, Low or Off). (Using the [++] and [--] buttons allow you to change numeric values in large jumps.)

- Due to space limitations, many parameter, Tone and function names are abbreviated. For example, ‘chorus’ is abbreviated as ‘Cho’. Where necessary, the abbreviations will be explained.
- Where possible, actual LCD screens will be used in explaining the instrument’s functions. Keep in mind, however, that screens presented by your W-5000 may differ depending on its settings.

THE GENERAL MIDI (GM) SYSTEM

The General MIDI System is a universal set of specifications for sound generating devices which hasbeen agreed upon by the Japanese MIDI Standards Committee and the American MMA (MIDI Manufacturer's Association). These specifications seek to allow for the creation of music data which is not limited to equipment by a particular manufacturer or to specific models.

The GM System defines such things as the minimum number of voices that should be supported, the MIDI messages that should be recognized, which sounds correspond to which Program Change Numbers, and the layout of rhythm sounds on the keyboard. Thanks to these specifications, any device that is equipped with sound sources supporting the GM System will be able to accurately reproduce GM Scores (music created under the GM System), regardless of the manufacturer or model.

THE GS FORMAT

The GS Format is the Roland/Rodgers standardized set of specifications for Roland/Rodgers sound sources which defines the manner in which multi-timbral sound generating units will respond to MIDI messages. The GS Format also complies with the GM System. The GS Format, however, defines a number of additional items. These include unique specifications for sounds, the functions available for Tone editing and effects (e.g. chorus and reverb), and other specifications concerning the manner in which sound sources will respond to MIDI messages.

Any device that is equipped with GS Format sound sources can faithfully reproduce GS Music Data (music data created under the GS Format).

The W-5000 supports both the General MIDI System and the GS Format. Song data (on 3.5 inch floppy disks) which carries either of these logos can be accurately reproduced.

STANDARD MIDI FILES (SMF)

The W-5000 can also playback Standard MIDI Files (720 Kbyte or 1.2 Mb format, 3.5 inch floppy disks) such as the data on any commercially available SMF music disk.

IMPORTANT NOTES

In addition to the Important Safety Instructions inside the front cover, please read and observe the following:

POWER SUPPLY

- Before connecting the instrument to other devices, be sure the power to **all** units is off; this will help prevent damage or malfunction.
- Be sure the voltage in your installation meets the requirement of your instrument. Check the back panel of your instrument for power requirements.
- Do not use this instrument on the same power circuit with any device that may generate line noise; an electric motor or variable lighting system for example.
- Unplug the AC cord when the instrument will not be used for an extended period of time. When disconnecting the AC cord, always pull on the plug itself; never pull on the cord.
- Avoid damaging the power cord; do not step on it or place heavy objects on it.

PLACEMENT

- Be sure to install this instrument on a very solid and stable floor or stage; its size and weight demand that safety be an important consideration.
- This device may interfere with radio and/or television reception. Avoid using this instrument in the vicinity of such receivers. (See inside back cover for more information.)

MAINTENANCE

- For everyday cleaning wipe the instrument with a soft, dry cloth. To remove stubborn dirt or stains, use a slightly dampened cloth and a mild, non-abrasive detergent. Afterward, be sure to wipe the instrument with a soft, dry cloth. (Be very careful not to spill any liquid into the instrument!)
- Never use benzine, thinners, alcohol or solvents of any kind to avoid the possibility of discoloration and/or deformation of plastic parts.

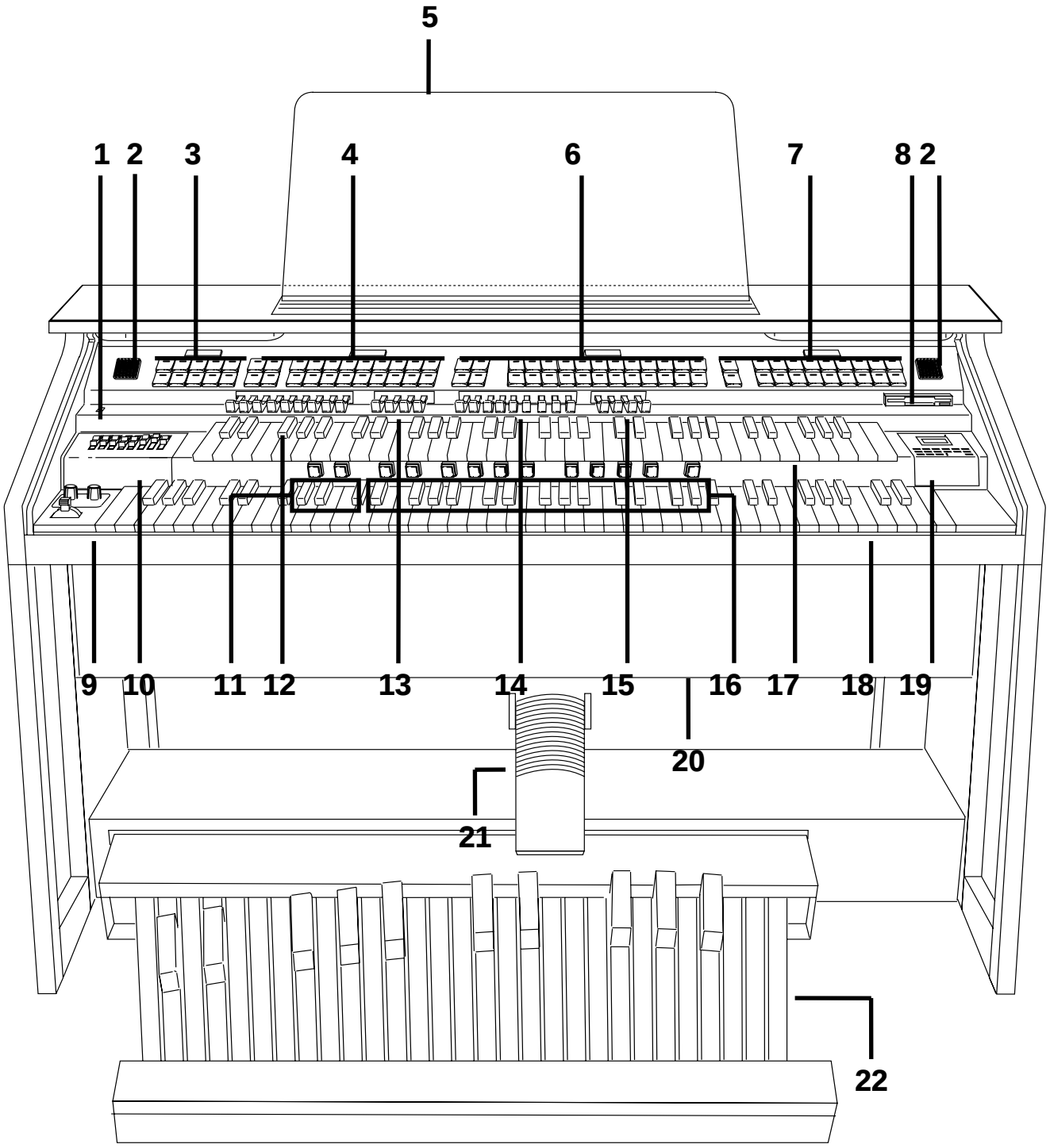
ADDITIONAL PRECAUTIONS

- Take great care when moving the instrument as it is very heavy. Safety should be foremost in your mind when you transport the unit. Proper care and a little common sense will ensure that no injuries occur and that the instrument isn't damaged.
- Before operating the instrument in a foreign country, be sure to consult with qualified service personnel. (Voltage incompatibility can seriously damage your instrument.)
- Setting a vase, bottle or glass containing liquid on the instrument is inviting an accident to happen! Any liquid spilled into the instrument can cause a great deal of damage or electric shock to users. To avoid such an occurrence, don't put any containers on the instrument. In the event that liquid is spilled into the instrument, discontinue use immediately. Unplug the power cord from the wall and contact qualified service personnel as soon as possible.
- Contact qualified service personnel when:
  - The power cord has been damaged
  - Objects or liquids have fallen into the instrument
  - The instrument has been exposed to rain or weather damage
  - The instrument has been dropped or the enclosure has been damaged
  - The instrument does not appear to function normally

CHAPTER 1

Introduction & Installation

FRONT PANEL DESCRIPTION

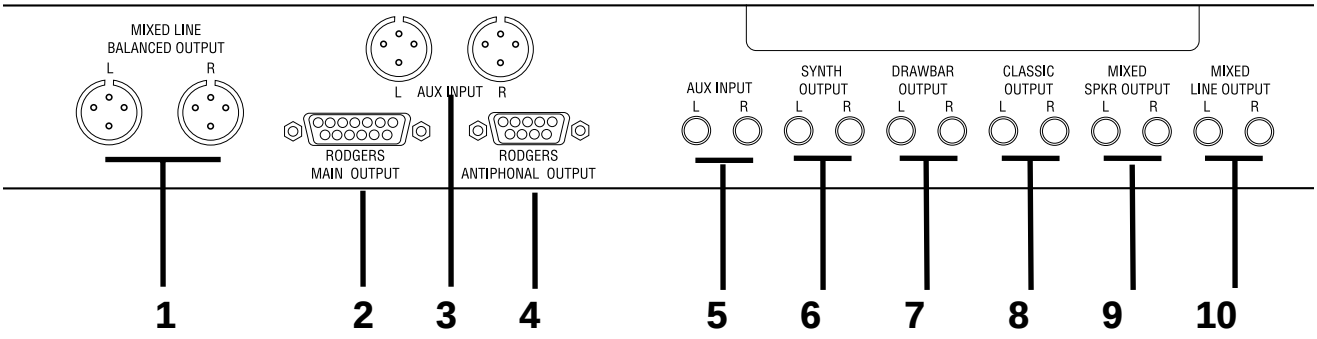


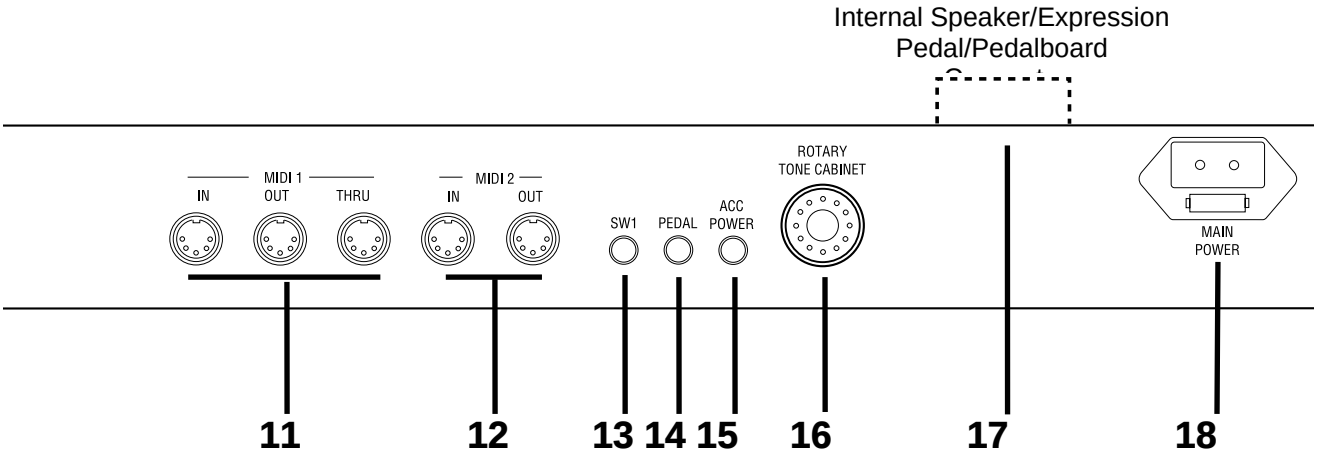
1 **Power Switch** This switch turns the W-5000 on and off.

2 **Tweeters** These are high-frequency speakers.

3	**EFFECTS Section**	These buttons access a variety of the W-5000's effects, such as reverb, chorus, drawbar click, aftertouch and so on.
4	**UPPER Tone Select**	These buttons select Tones and functions for the Upper manual.
5	**Music Rest**	Music rest and panel light intensity can be changed as required.
6	**LOWER Tone Select**	These buttons select Tones and functions for the Lower manual.
7	**BASS Tone Select**	These buttons are used to select Tones for the Pedalboard and for the Lower manual when it is split into two sections (Keybass).
8	**Floppy Disk Drive**	The drive can be used to record and playback your keyboard performances, as well as to store instrument data and playback commercial song data.
9	**Performance Controls**	The [SPKR] knob controls the overall volume of the W-5000 (including headphones when they're connected). The [LINE] knob controls the level of the Line Out signal. The [Bender/Modulation] lever raises and lowers the pitch, and adds vibrato to the notes you play.
10	**BALANCE Section**	These sliders are used to create the appropriate balance between Tones which you have layered together. There are separate sliders for the UPPER, LOWER and BASS sections.
11	**ROTARY Buttons**	The [ROTARY] button activates the W-5000's rotary speaker simulator, and the [FAST/SLOW] button changes the rotary effect speed.
12	**UPPER Drawbars**	Drawbars act like tone controls for sounds produced by the Tone-Wheel/Drawbar generator. They can provide real-time control as you play the Upper manual.
13	**PERC/USER Drawbars**	The PERC (Percussion) drawbars control the attack portion of the sound (for the Upper manual only). The USER drawbars can be assigned a variety of different functions as required.
14	**LOWER Drawbars**	These drawbars affect the Tone-Wheel sounds for the Lower manual.
15	**BASS Drawbars**	These drawbars affect the Lower manual and Pedalboard.
16	**General Presets**	These buttons are used to select and store overall instrument settings.
17	**Upper Manual**	This is a 61 note, velocity sensitive, lightly weighted keyboard.
18	**Lower Manual**	This is a 76 note, velocity and aftertouch sensitive, lightly weighted keyboard.
19	**LCD/System Controls**	The LCD (Liquid Crystal Display) provides information about selected Tones and operational status. The system controls (EDIT and FUNCTIONS) allow you to custom configure and control your instrument.
20	**Speaker Enclosure**	This box contains the W-5000's speakers.
21	**Expression Pedal**	This pedal functions as a kind of volume control, but different functions can be assigned to it. The 'kick' switches offer additional control.
22	**Pedalboard**	This is a 25 note, velocity sensitive pedalboard.

REAR PANEL DESCRIPTION





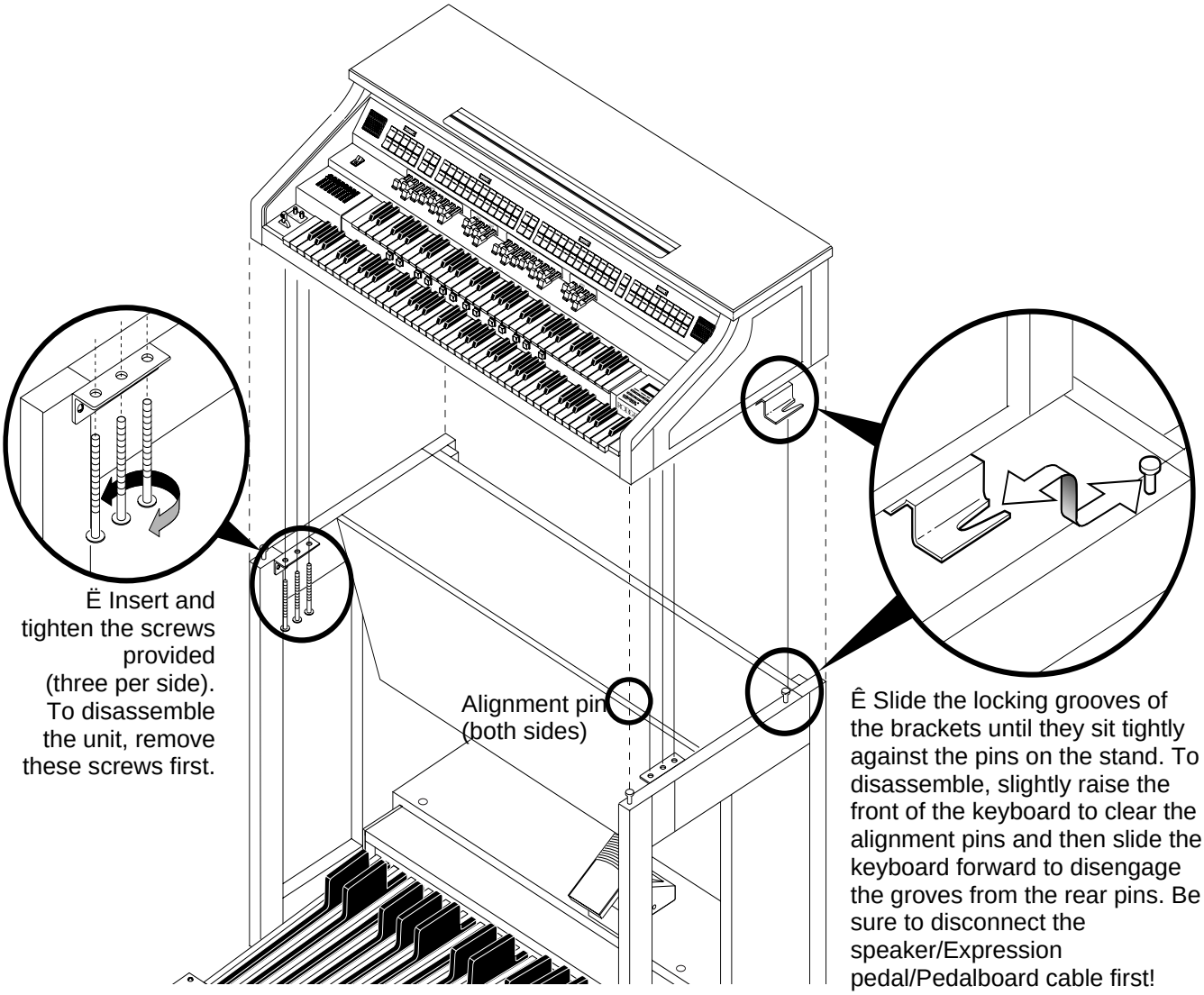
1	**MIXED LINE**	These XLR connectors allow you to connect your W-5000 to a mixing console BALANCED INPUT (using long cables if necessary). The signal from these connectors is a Line level mix of the individual outputs (SYNTH, DRAWBAR and CLASSIC).
2	**RODGERS**	This is the standard Rodgers connector for the main individual outputs MAIN OUTPUT(SYNTH, DRAWBAR and CLASSIC) and the MIXED LINE or SPKR OUTPUT. It also sends a 'power on' signal to any connected amplifier(s).
3	**AUX INPUT**	These XLR inputs accept connection of microphones, external keyboards etc. Sensitivity and other controls are accessible through the [AUDIO] button in the FUNCTIONS section.
4	**RODGERS**	This is the standard Rodgers connector for MIXED LINE Output. It also sends a ANTIPHONAL OUTPUT 'power-on' signal to any connected amplifier(s).
5	**AUX INPUT**	These 1/4" inputs accept connection of microphones, sound modules, external keyboards etc. Sensitivity and other controls are accessible through the [AUDIO] button in the FUNCTIONS section.
6	**SYNTH OUTPUT**	These 1/4" jacks provide an individual, line-level output for sounds from the Synth tone generator. For the best results, use both jacks.
7	**DRAWBAR OUTPUT**	These 1/4" jacks provide an individual, line-level output for sounds from the Tone-Wheel generator. For the best results, especially when the Rotary simulator is active, use both jacks.
8	**CLASSIC OUTPUT**	These 1/4" jacks provide an individual, line-level output for sounds from the Classic Organ tone generator. For the best results, use both jacks.
9	**MIXED SPKR**	These 1/4" jacks provide a line-level output for the same signals going to the OUTPUT internal amplifier and speakers (the Speaker mix).
10	**MIXED LINE**	These 1/4" jacks provide an option for connection to a mixing console (an OUTPUT optional Line mix output).
11	**MIDI 1**	These MIDI ports allow you to connect your W-5000 to external MIDI devices (such as sound modules, sequencers etc.). Control of these ports is accessed through the [MIDI] buttons found in each section (UPPER/LOWER/BASS) and the [MIDI] button in the FUNCTIONS section.
12	**MIDI 2**	Same as MIDI Port 1 without the THRU connector.
13	**SW1**	This 1/4" jack accepts connection of an external, switched (on/off) controller. The function of this controller is user defined.
14	**PEDAL**	This 1/4" jack accepts connection of an external controller (such as an Expression pedal). The function of such a controller is user defined.
15	**ACC POWER**	This is a general purpose 12v DC power outlet. It can be used to power an external piece of equipment (like a Rodgers PR-300, for example).
16	**ROTARY TONE CABINET**	This multi-pin connector is used to connect a rotary tone cabinet to your W-5000.
17	**SPEAKER/ EXPRESSION PEDAL**	This multi-pin connector is used to connect the on-board speakers and Expression pedal (both integrated into the stand) to the keyboard.
18	**MAIN POWER**	Connect the included AC power cord to this inlet.

SETUP AND INSTALLATION

Because of the W-5000's size and weight, setup and installation are somewhat more involved than with a smaller instrument. Your Rodgers dealer will very likely assist with the delivery and initial setup of your new instrument, and this provides a good opportunity to gain first-hand experience with the process.

BASIC ASSEMBLY

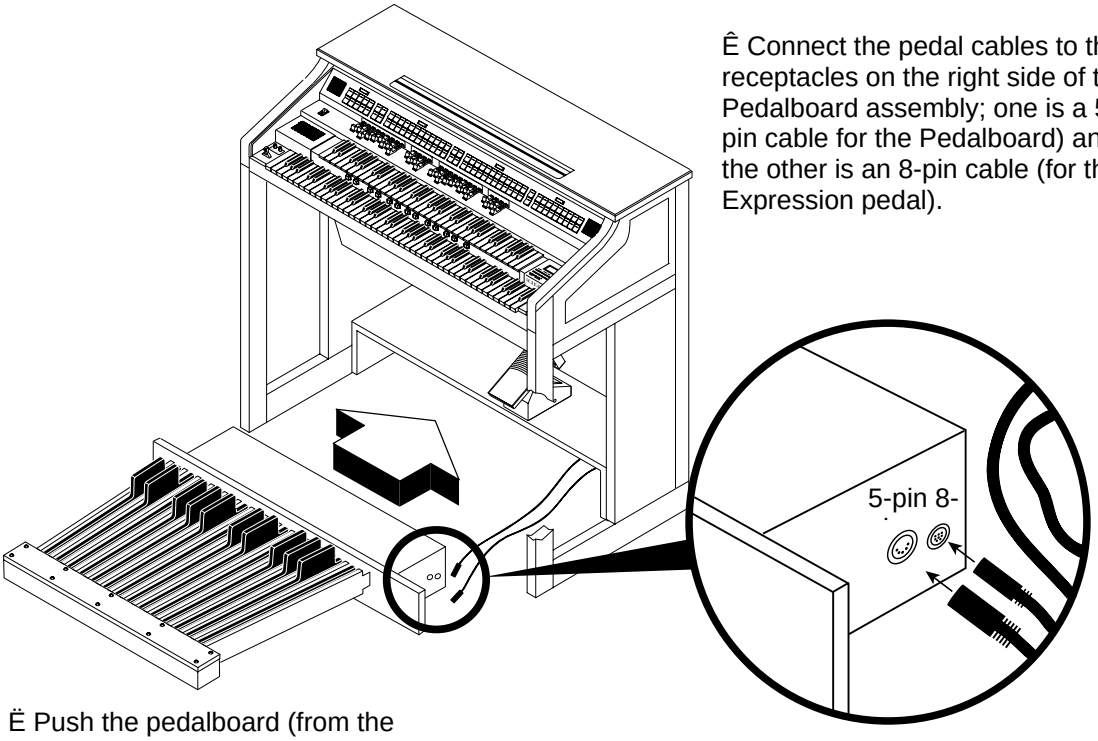
Your Rodgers dealer may deliver your W-5000 in one piece, or it may be necessary to assemble the two main sections; the keyboard itself and the stand. The information provided here will also be useful should you need to disassemble the instrument for future transport.


Ë Insert and tighten the screws provided (three per side). To disassemble the unit, remove these screws first.
Alignment pin (both sides)
Ê Slide the locking grooves of the brackets until they sit tightly against the pins on the stand. To disassemble, slightly raise the front of the keyboard to clear the alignment pins and then slide the keyboard forward to disengage the groves from the rear pins. Be sure to disconnect the speaker/Expression pedal/Pedalboard cable first!

INSTALLING THE PEDALBOARD

Once the instrument is secured to the stand, it will be necessary to install the Pedalboard.

First, however, free the two pedal cables that are temporarily secured by a fastener to the underside of the stand. (Do not remove this fastener from the base of the instrument. Before moving the W-5000, be sure that these cables are carefully bundled (without any slack) and secured to the base using the fastener.) **[NOTE: Refer to the following page for information on pedalboard installation for the "A" version of the W-5000.]**



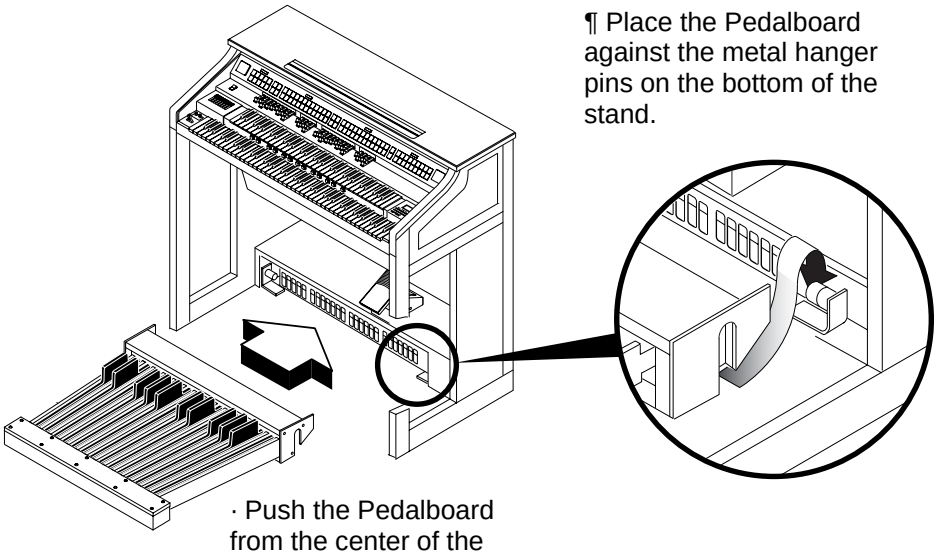
Ê Connect the pedal cables to the receptacles on the right side of the Pedalboard assembly; one is a 5-pin cable for the Pedalboard) and the other is an 8-pin cable (for the Expression pedal).

Ë Push the pedalboard (from the center of the heelpad) so it slides all the way into the stand.

NOTE: If your W-5000 is sitting on a very thick carpet, it may be difficult to slide the Pedalboard into place. If that is the case, very carefully lift one side of the instrument and rotate the adjustable feet to provide more clearance. Then lift the other side and do the same. **Take great care when making this adjustment; this 500 pound instrument could cause severe injury if it were to pinch fingers or toes!**

INSTALLING THE PEDALBOARD (W-5000 Version "A" Only)

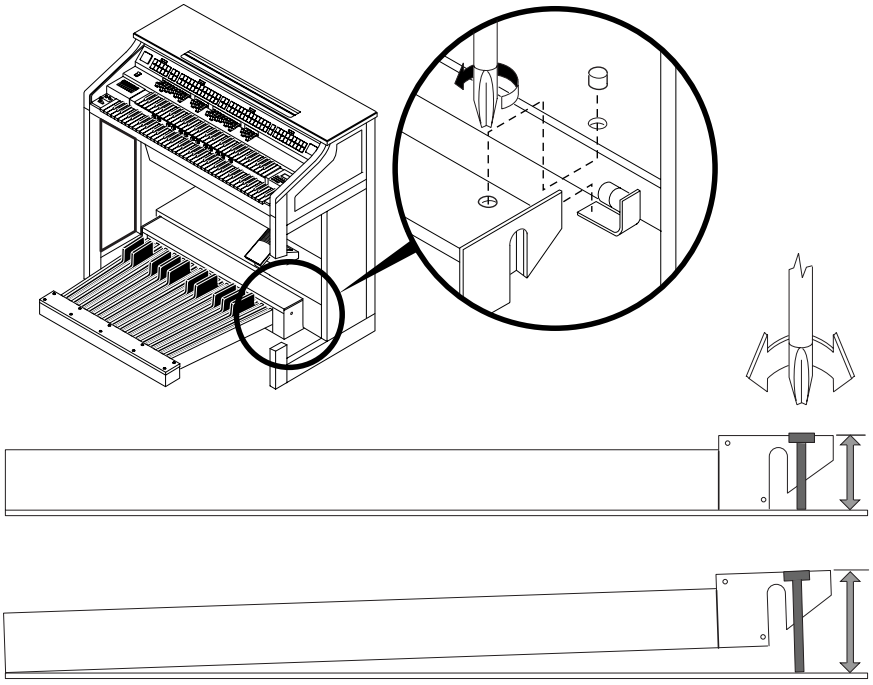
Once the instrument is secured to the stand, it will be necessary to install the Pedalboard.
The Pedalboard unit contains two metal hooks which simply hook over top of the short metal bars on the bottom of the stand. (It's very important to make sure the Pedalboard is straight while you firmly push it into its latched position):



¶ Place the Pedalboard against the metal hanger pins on the bottom of the stand.

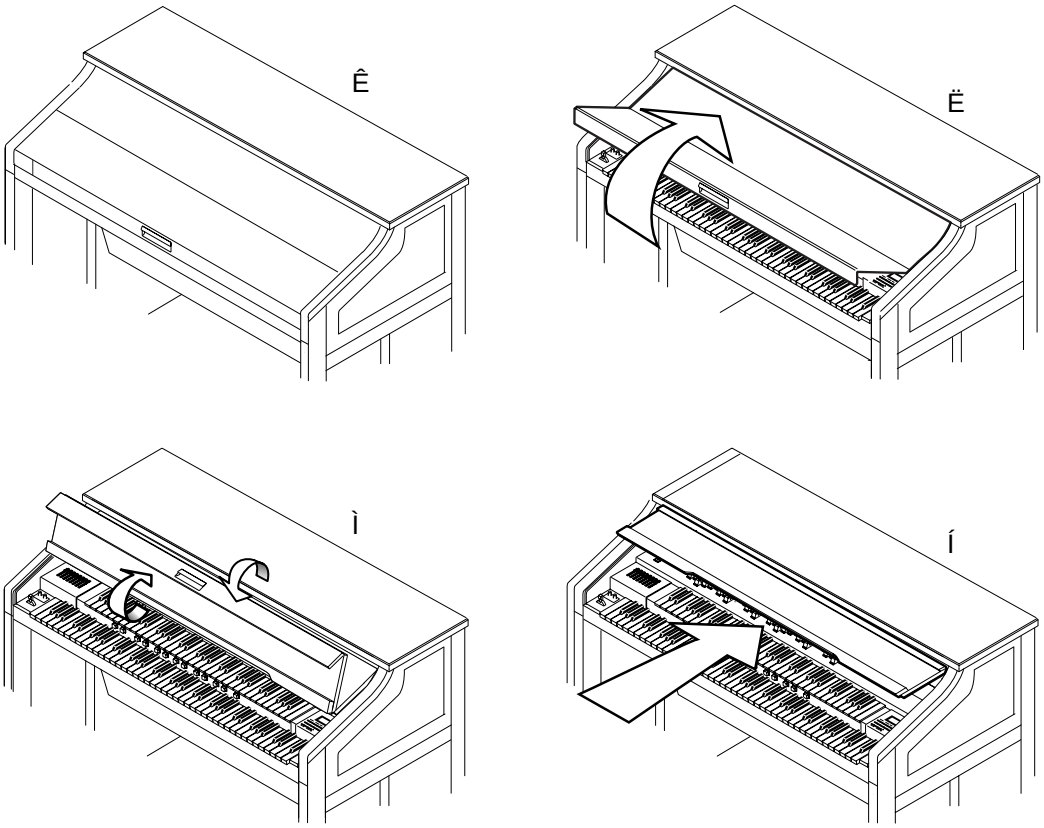
· Push the Pedalboard from the center of the heelboard.

If you like, you can also adjust the height of the Pedalboard.
Note: If you are installing the unit on thick carpet, raise the console by rotating its adjustable feet so the Pedalboard is relatively parallel to the floor:



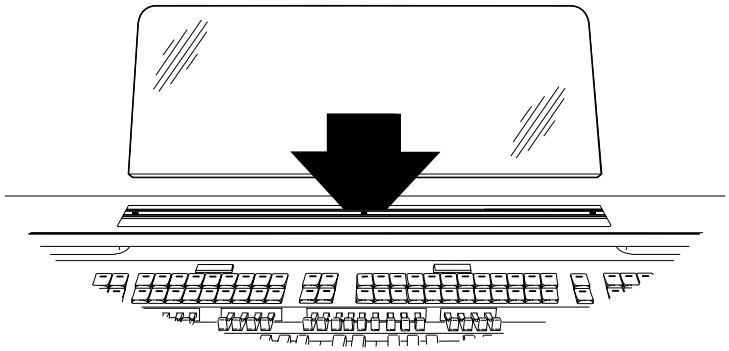
OPENING THE LID

The instrument's lid may have been locked for transit. Find the key and unlock the lid. To open the instrument lid, simply lift the handle and fold back. When the lid is folded, push it straight back into the instrument case. To close the lid, pull it straight out, unfold, and gently lower over the keyboards:



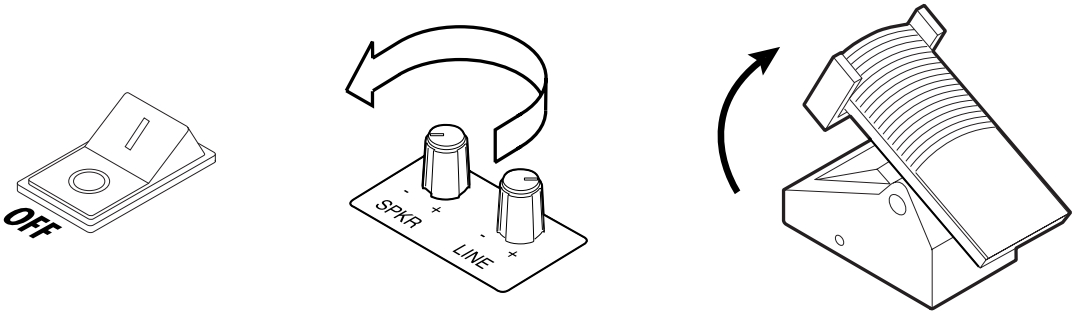
THE MUSIC REST

The plexiglass music rest slides easily into the deep groove on top of the keyboard:

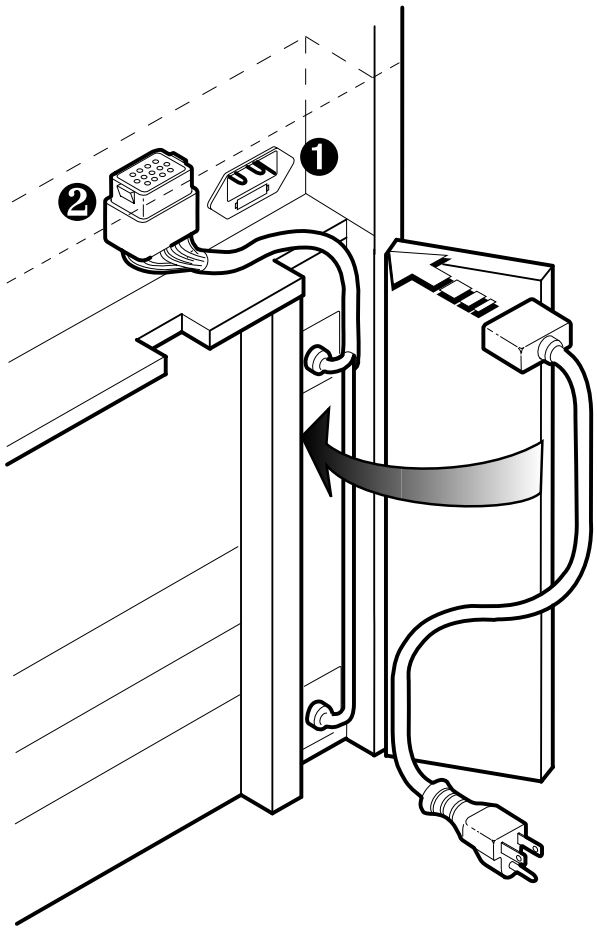


CONNECTING THE POWER CORD, EXPRESSION PEDAL AND SPEAKERS

Be sure the [Power] switch (on the far left-hand side of the panel) is in the OFF position. Also be sure the [SPKR] knob (main volume) (just below the Power switch) is at the minimum position and that the Expression pedal is in the full-up (minimum) position:



Connect the included AC power cord to the MAIN POWER inlet on the rear panel of the instrument; tuck the power cord into the channel in the leg of the stand (but don't close the cover just yet):



Ê MAIN POWER connection
Ë Speaker / Expression Pedal / Pedalboard connection.

The speakers, Expression pedal and the Pedalboard must be connected to the keyboard. Find the multi-plug connector (which is located in the channel of the leg) and connect it to the receptacle above and to the left of the MAIN POWER inlet. (See graphic on the previous page.) Once both the power cord and the speaker/Expression pedal/Pedalboard cable are secure, tuck the cables inside the channel and close the cover.

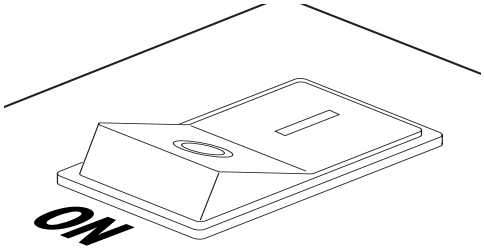
Once the instrument is fully assembled, move it carefully into its final position (if it isn't already there). Be sure the instrument is sitting on a very solid, stable floor or stage. **(If necessary, stabilize the instrument by rotating the adjustable feet on the bottom of the unit.)** Remember to leave enough space behind the instrument so that you can easily access the rear panel. Connect the power cord to a wall outlet. (Be sure the voltage of your power outlet matches the requirement of your instrument! And never attempt to modify the power cord; DO NOT remove the ground pin (the third prong) from the plug.)

CHAPTER 2

Performance Basics

POWERING UP

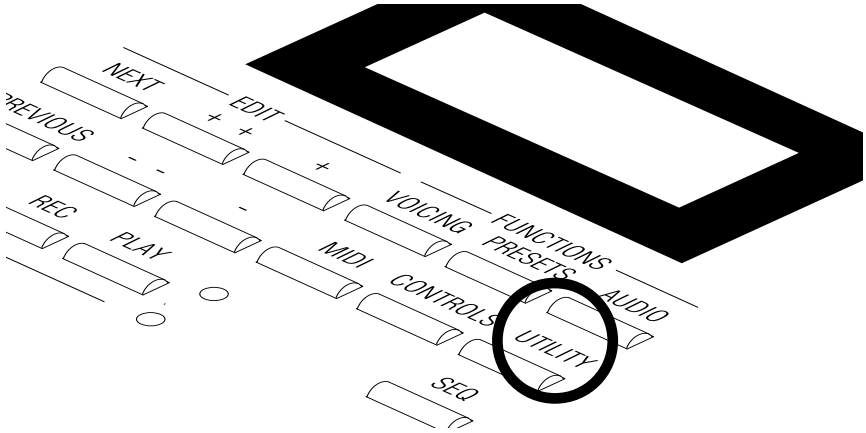
Press the [Power] switch. (It's just that easy!)



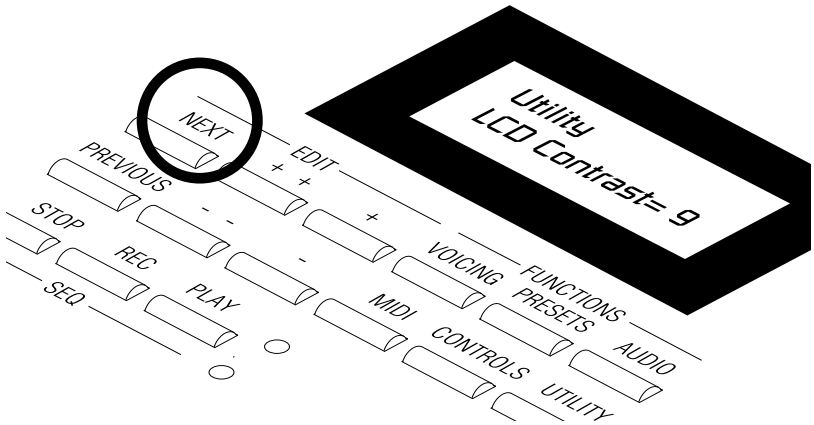
LCD CONTRAST

If the LCD is difficult to read because of poor lighting conditions or whatever, there is a simple way to adjust the display contrast:

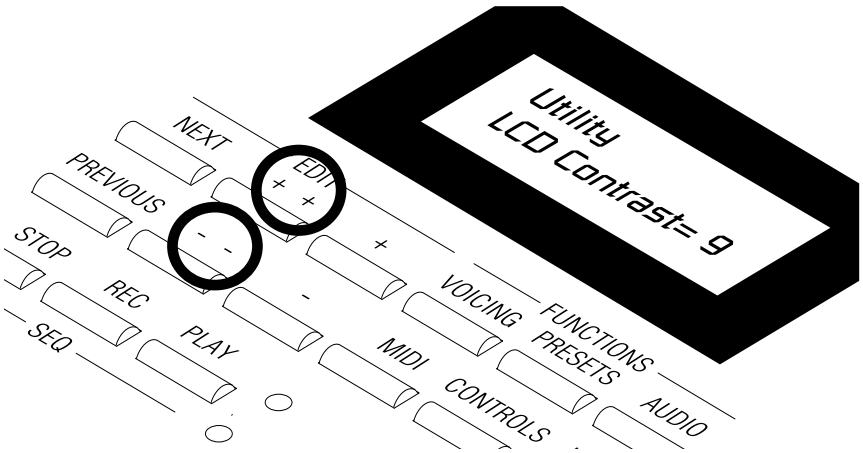
Ê Find and press the [UTILITY] button in the FUNCTIONS section (directly under the LCD):



Ë Press the [NEXT] button (in the EDIT section) repeatedly until the words 'LCD Contrast' appear in the LCD:



Ì Press the [+] and [-] buttons in the EDIT section until the LCD is easily readable. (The adjustable range is 0-9.):

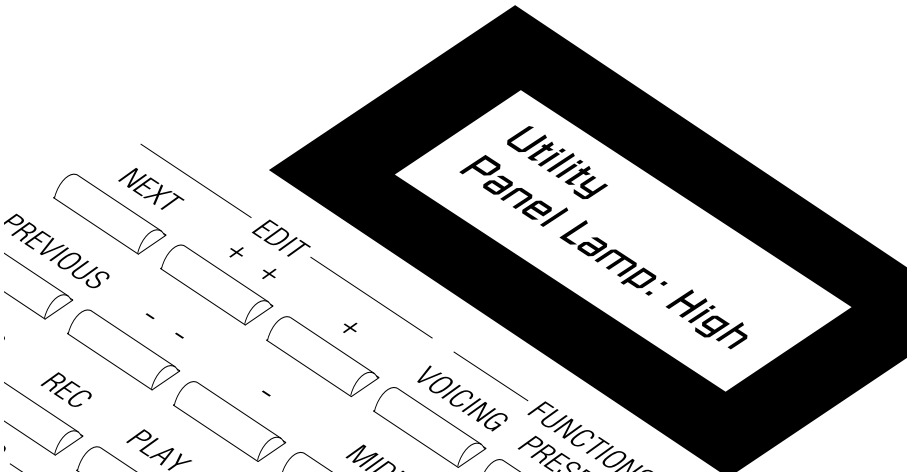


PANEL / PEDALBOARD LIGHTING

The W-5000 contains panel and Pedalboard lights which make it easy to see what you're doing on a dark stage. These lights can be adjusted with the following procedure:

Ê Press the [UTILITY] button.

Ë Press the [NEXT] button until the words 'Panel Lamp' appear in the LCD:



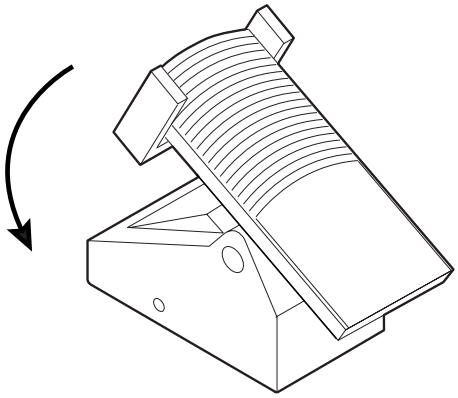
Ì Press the [+] and [-] buttons until the panel lights are properly adjusted; High, Low or Off.

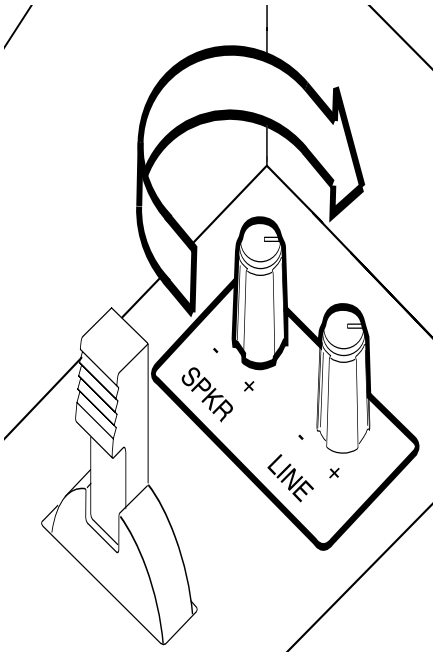
PERFORMANCE BASICS

The W-5000 contains three tone generators; the Drawbar/Tone-Wheel generator (for contemporary organ sounds), the Classic Organ generator (for classical and church organ sounds), and the Synth generator (for synthesized instrument and percussion sounds). The following sections describe how to select and play sounds from these three generators. (If you've worked through the Quick Start guide, you'll already be familiar with these procedures.)

DRAWBAR TONES

Ê While seated comfortably (on the handsome and functional bench!), raise the volume a little by rotating the [SPKR] knob clockwise and by depressing the Expression pedal slightly.



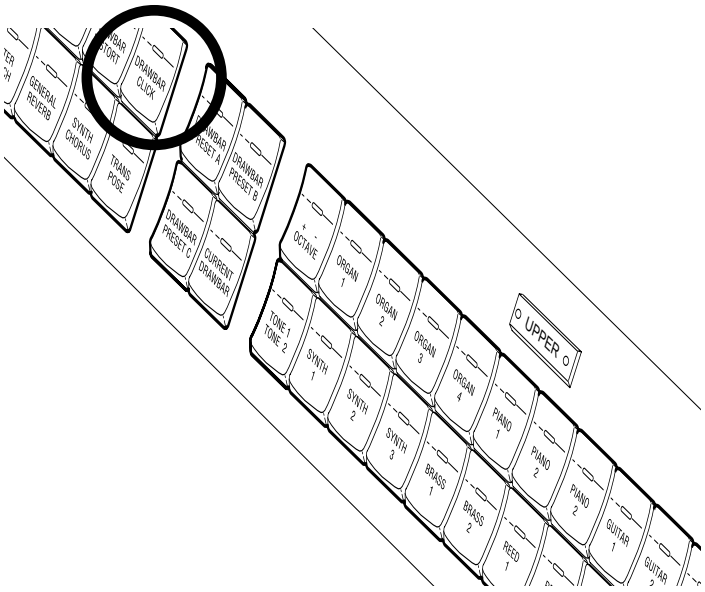


[Bender/Modulation] lever

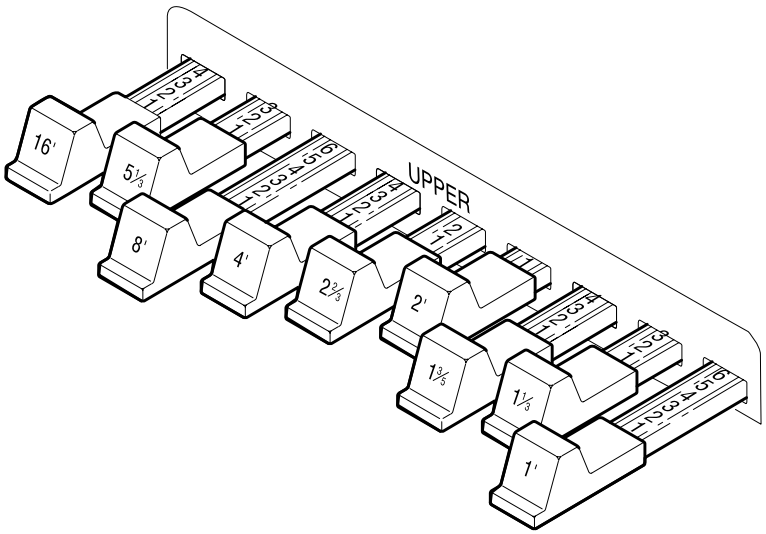
Ë Play a few notes on the Upper manual (the top keyboard) and set an appropriate volume with the [SPKR] knob and Expression pedal.

Headphones can also be used; the headphone jack is located just below the [Bender/Modulation] lever. Note that connecting headphones to this jack will cut off the internal and any external speakers. **Take great care when using headphones however; excessive volume levels can easily damage your hearing!**

Ì Find the [CURRENT DRAWBAR] button in the group of buttons marked UPPER; the button's red LED (Light Emitting Diode) should be lit. (When a [CURRENT DRAWBAR] button is lit, the W-5000's Tone-Wheel generator is active.)

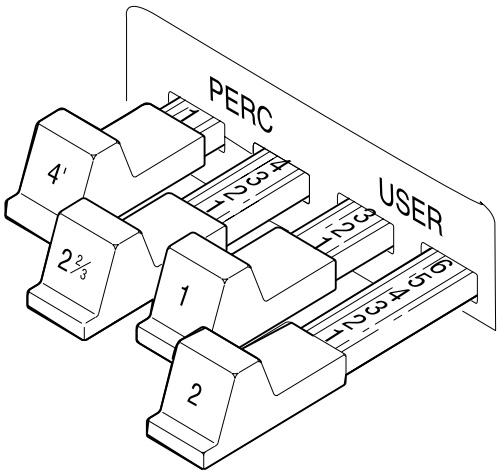


Í While playing the Upper manual with your right hand, move some of the UPPER drawbars (the sliders with all the numbers on them):

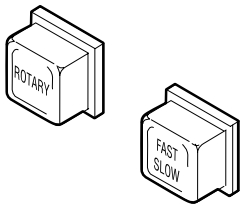


As you play, you'll instantly hear that each drawbar affects a different range of the harmonic content of the sound. You'll discover that each one controls different frequency ranges, like sophisticated tone controls. Once you get a little experience you'll be able to quickly create the sound you want.

Î Just to the right of the nine UPPER drawbars are two PERC (Percussion) drawbars. Try pushing and pulling these drawbars and you'll notice that they affect the attack or initial portion of the sound, making it a little 'harder' or 'softer'.

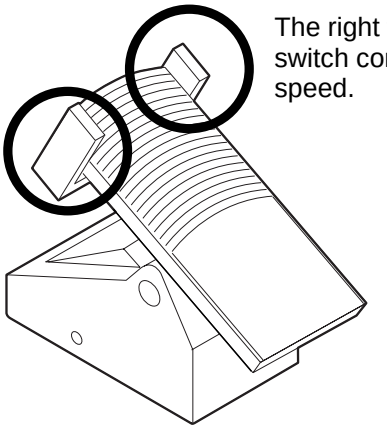


Ï To add to the fun, find the [ROTARY] button (located on the vertical panel just under the Upper manual). When this button is lit, the W-5000's rotary speaker simulator is active. (This simulates the effect of real rotary speakers such as the famed Leslie.) To change the rotary speed, press the [FAST/SLOW] button.



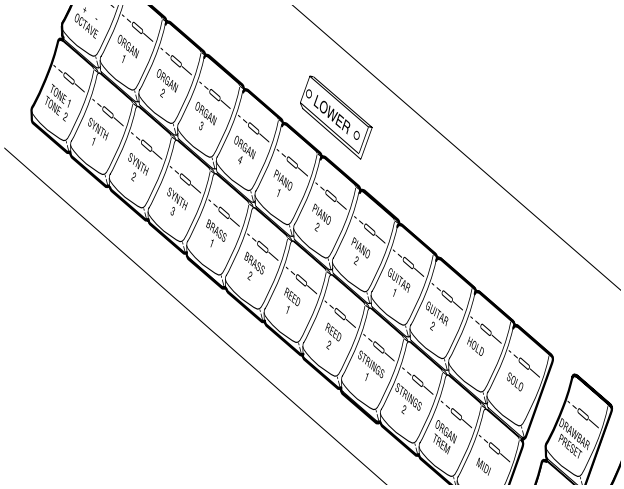
However, you can also change the speed using the right 'kick' switch on the Expression pedal (just give it a little tap with the right side of your foot!):

The left foot (or 'kick') switch controls sustain of Synth Tones.



The right foot (or 'kick') switch controls rotary speed.

All of the controls and functions described here (with the exception of the PERC drawbars) are duplicated for the Lower manual (the bottom keyboard). All of the relevant controls for the Lower manual are (cleverly enough) marked LOWER!



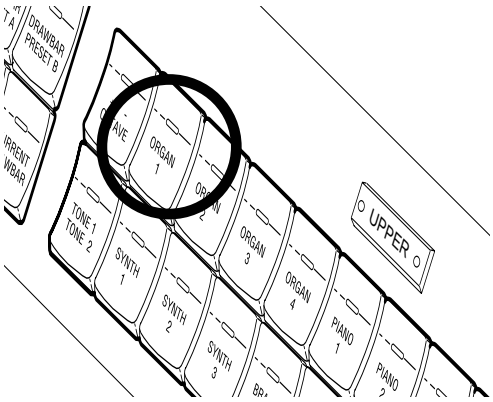
There are several parameters (settings) which you can set to customize the W-5000's drawbar sounds and rotary effect. Refer to 'Drawbar Parameters' on page 113, and '[ROTARY] Parameters' on page 122 for a complete list of these parameters and what they do.

Of course, the Drawbar/Tone-Wheel generator is but one of three in the W-5000. This instrument also contains a Classic Organ tone generator which creates sounds ideally suited to classical and church music. The next section will show you how to select and play these Tones.

CLASSIC ORGAN TONES

Ê To access the Classic Organ Tones for the Upper manual, first press the [CURRENT DRAWBAR] button in the UPPER Tone select section; be sure the button's LED is dark. (It's important to turn the Tone-Wheel generator off, otherwise its sounds will be layered - played together - with the Classic Organ Tones you select.)

Ë Press [ORGAN 1] (for example) in the UPPER Tone select section. The button's red LED should light:



Depending on which Tone has been assigned to that button (which you'll learn how to do), the LCD will read something like:

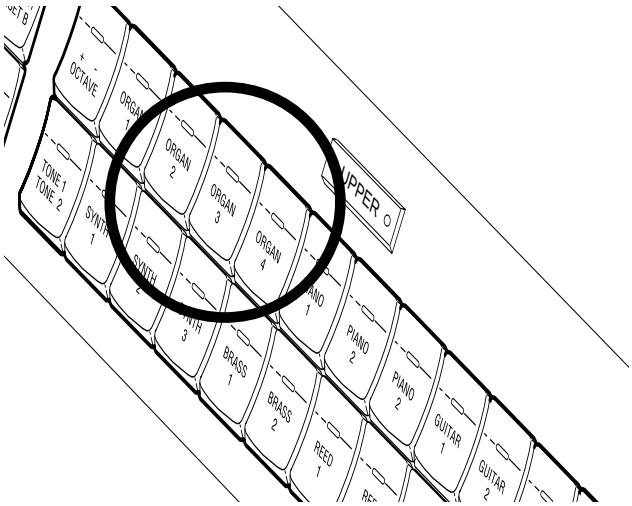
This indicates a Program Number ('1' in this case), a Bank Number ('0'), and a name ('Gedackt'). (Note that much of the terminology used with the W-5000's Classic Organ Tones comes from traditional pipe organs.)

Play the Upper manual to hear the sound you have selected.

Ì To select different Classic Organ Tones (Program Numbers), press the [+] button in the EDIT section.

Pressing the [+] button will advance through the Program Numbers and pressing the [-] button reselects the previous Program Number.

Í Try some of the other organ Tones under the [ORGAN 2], [ORGAN 3] and [ORGAN 4] buttons if you like. Again, you can select additional Tones using the [+] and [-] buttons in the EDIT section. (Don't be concerned about selecting some of the same sounds you found under the [ORGAN 1] button - we'll explain what's going on in due time!)

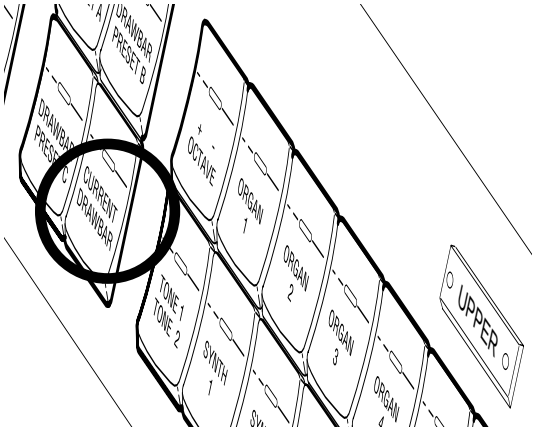


NOTE: If you've already tried, you've discovered that the drawbars will not affect the Classic Organ Tones. The Classic Organ and Drawbar/Tone-Wheel generators are independent of one another. The drawbars are active ONLY when a [CURRENT DRAWBAR] button is lit.

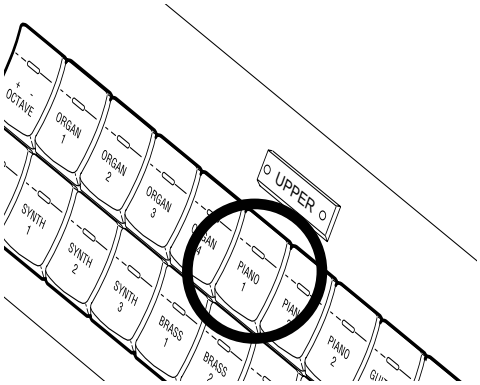
Finally, we come to the last Tone generator in the W-5000, the generator that produces...

SYNTH TONES

Ê To access the W-5000's Synth Tones for the Upper manual, first be sure the [CURRENT DRAWBAR] button in the UPPER Tone select section is dark. (Again, for now you probably won't want the drawbar sounds to be heard with the Synth Tones you select.)



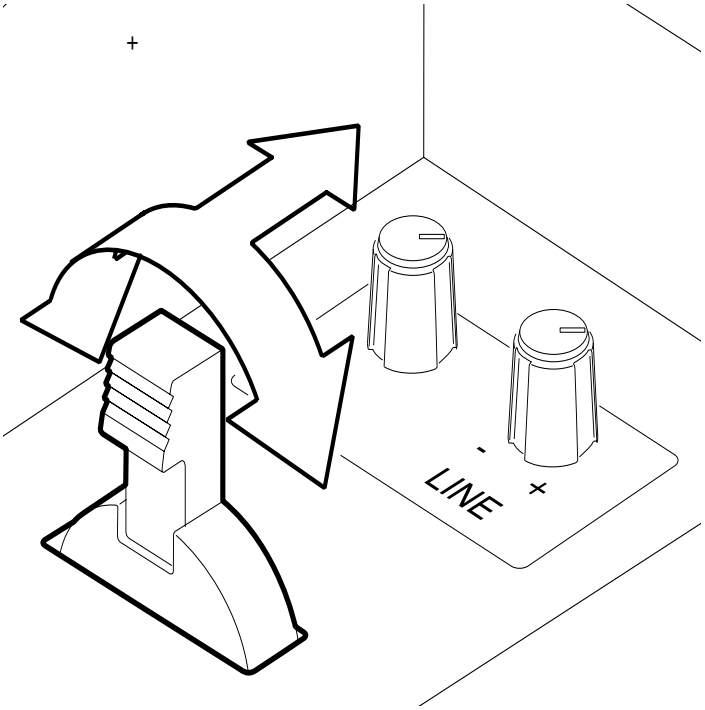
Ë Press [PIANO 1] (for example) in the UPPER Tone select section. The button's red LED should light .



Again, depending on what Tone has been assigned to that button, the LCD might read:

Ì Play the Upper manual and you'll hear a piano sound.

You might also want to try moving the [Bender/Modulation] lever (just below the [SPKR] knob) while you play. Note that this lever affects all but a few of the Synth Tones available; a simple trial will tell you which. (Drawbar Tones are unaffected by this lever.)



The [Bender/Modulation] lever is one of the W-5000 controllers.
Pushing the [Bender/Modulation lever to the right raises the pitch (+), pushing it to the left lowers the pitch (-), and pushing it forward adds a vibrato effect. Pitch bend and modulation effects work best with synthesizer-type tones. Experiment!

Pitch bending sounds a little strange when applied to a fixed-interval instrument like a piano, so just use your best judgement when deciding which sounds to apply it to.

Í To select other piano sounds, press the [+] button in the EDIT section. As you press this button you'll step through these sounds, starting with Piano 1: Piano 2, Piano 3, Honky-Tonk. E. Piano 1, E. Piano 2, Harpsichord and Clavinet.

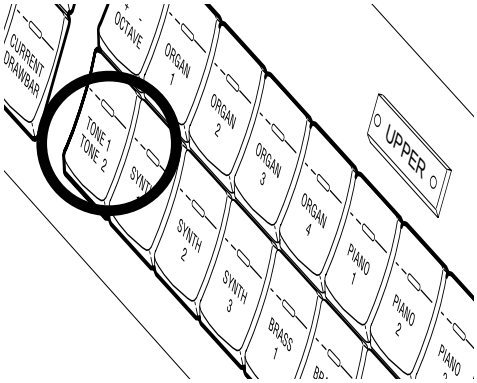
NOTE: Don't press the [+] button any further at this point as the 'Tone Map' - the way sounds are organized - may seem a little confusing at first. Eventually you'd call up sounds that aren't even remotely related to the piano!

The idea behind the W-5000's structure is that you're able to assign any Tone to any Tone button. So, for example, if you have three favorite piano sounds, you can easily assign each of them to one of the three Piano buttons ([PIANO 1], [PIANO 2] or [PIANO 3]) in a Tone select section. By doing this you'll be able to instantly recall your favorite piano sounds without having to dig through layers of Program and Bank Numbers. For a more detailed explanation of the W-5000's sound organization and how to assign Tones to Tone buttons, please refer to 'Tone Mapping' on page 42.

LAYERING TONES

Further increasing the W-5000's versatility is the ability to layer Tones, that is, having two Tones sound together.

So far we have been dealing with Tone 1 sounds only. When the [TONE 1/TONE 2] button (in any Tone select section) is red, you'll be selecting Tone 1 sounds; any Tone button you press will light with a red LED. Note that you can only select a single Tone 1 sound at a time (pressing another Tone select button will replace your previous selection) .



If, however, you press the [TONE 1/TONE 2] button again so its green LED lights, you'll be able to choose a second Tone to layer with the Tone 1 sound you've selected. Follow this example and you'll see what we mean.

In the UPPER Tone select section:

Ê Press the [TONE 1/TONE 2] button so its red LED lights.

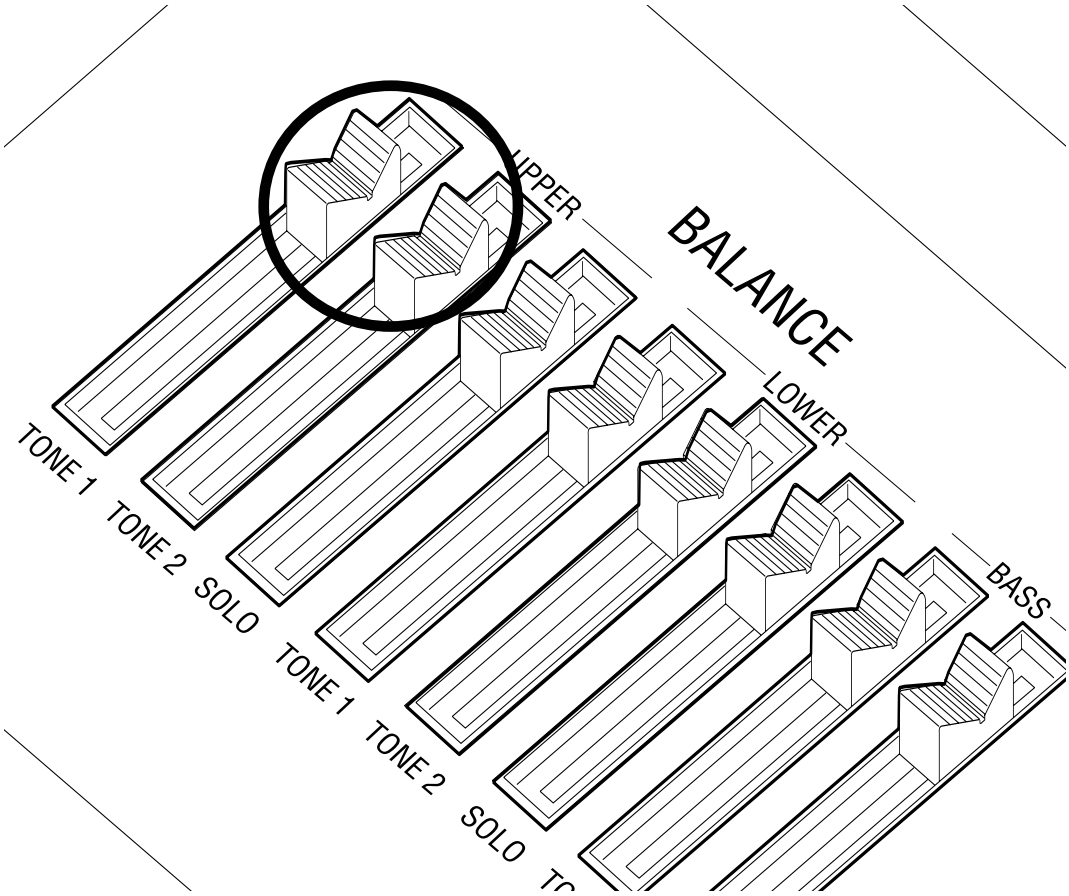
Ë Press the desired Tone select button (its red LED should light).

Ì Press the [TONE 1/TONE 2] button again so its green LED lights.

Í Press another Tone select button (its green LED should light).

You'll now have two active Tone buttons; one lit with a red LED (Tone 1) and the other lit with a green LED (Tone 2). (Note that simply pressing two Tone buttons simultaneously will achieve the same result.)

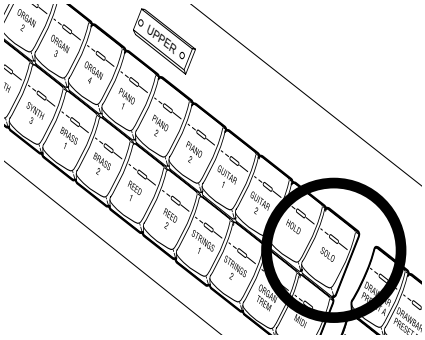
Î Play the Upper manual to hear the two Tones together. If you'd like to adjust the balance between the two Tones, simply move the UPPER [TONE 1] and [TONE 2] sliders in the BALANCE section (just above the [SPKR] knob). Pulling a slider down will reduce the volume for the corresponding Tone.



There are a number of different parameters (settings) that you can set that affect Tone 1 and Tone 2 sounds. For a complete list of these parameters and what they do, please refer to '[TONE] Parameters' on page 111.

THE SOLO FUNCTION

The UPPER and LOWER sections of the W-5000 each contain a [SOLO] button. When this function is active (the button LED is lit), an additional Tone is enabled, which can be restricted to following a single note, or arpeggiating a chord. In effect this gives you three Tones playable from each manual. Balance among the three Tones of either manual can be adjusted using the corresponding sliders ([TONE 1], [TONE 2] and [SOLO]) in the BALANCE section.



To use the Solo function (for either the UPPER or LOWER section), follow this procedure:

Ê Press the [SOLO] button in the UPPER section (for example).

Ë Select a Solo Tone using the [+] and [-] buttons in the EDIT section.

Ì Press the [NEXT] button repeatedly until the words 'Solo Mode' appear in the LCD.

Í With the [+] and [-] buttons, select the desired Solo mode: Poly, First, Last, Low, High, Sequence, Up, Down, Up & Down, Wander, Random or Chord.

Poly : All notes use the Solo Tone

First : First note uses the Solo Tone

Last : Last note uses the Solo Tone

Low : Lowest note uses the Solo Tone

High : Highest note uses the Solo Tone

Arpeggio Modes

The seven Arpeggio modes are an extension of the W-5000's Solo function. The delay time between the arpeggiated notes or chords is determined by the Vibrato rate. Arpeggio sequences may also be 'latched' using the Sustain pedal. These Arpeggio modes are:

Sequence	: Notes played are played back, one at a time, in the same sequence (order) they were played in.
Up	: Notes are played back, one at a time, in ascending order.
Down	: Notes are played back, one at a time, in descending order.
Up & Down	: Notes are played back, one at a time, in alternating ascending and descending order.
Wander	: This mode is similar to the 'Up & Down' mode except that it changes randomly.
Random	: All notes are played one at a time but in a random order.
Chord	: The Arpeggio sequence is based upon a repeated (or looped) four-beat measure in which all the notes are quantized. This simply means that all the notes which fall within the first beat of the bar will be timed to play precisely where they should. The same applies to all the notes falling within the second, third and fourth beats. The delay time between the beats depends upon the value set for the Vibrato rate.

Arpeggio Latching

In the Arpeggio modes the sustain function no longer sustains notes, but instead 'latches' them into the Arpeggiator. This allows you to play longer arpeggios than you can reach at one time.

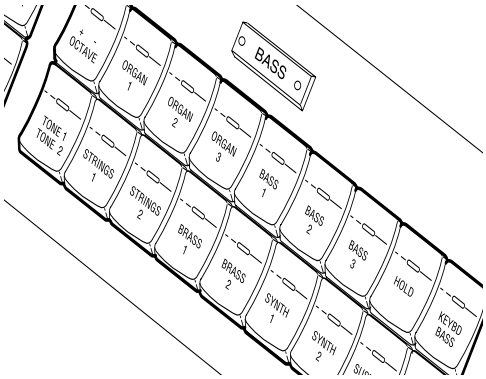
As you've seen in the LCD, the Solo function also contains a number of other parameters which you can set (including the note range over which the Solo Tone is heard). See '[SOLO] Parameters' on page 112 for a complete list and description of these parameters.

BASS TONES

PEDALBOARD

No serious players' instrument of this type would be complete without a Pedalboard! And the W-5000's is as versatile as the rest of the instrument.

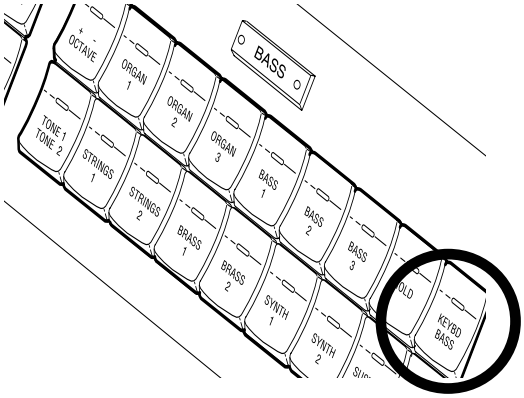
The BASS Tone select section allows you to select a variety of Tones for the Pedalboard. Again, you can layer Tones (using the [TONE 1/TONE 2] button) and create the appropriate balance using the BASS [TONE 1] and [TONE 2] sliders in the BALANCE section.



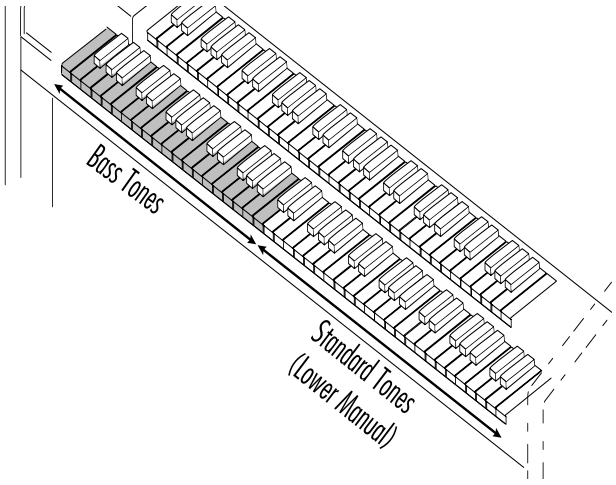
KEYBOARD BASS

One last option allows you to split (divide) the Lower manual into two parts, allowing you to play Bass Tones in the section to the left of the split point, and standard Tones to the right of it.

Ê Press the [KEYBD BASS] button in the BASS Tone select section :



The Lower manual will be divided or split into two sections:



Ë Pressing the [+]/[-] or [++]/[--] buttons in the EDIT section allow you to move the split point on the Lower manual. Use these buttons to set the desired split point.

Ì Now you can select and layer Tones for the keybass section using the same procedure described for the Upper and (complete) Lower manuals. The Tone(s) previously selected for the Lower manual will now only apply to the section to the right of the split point.

Note also that there are four BASS drawbars which you can use to control the Drawbar organ sound when the BASS section [CURRENT DRAWBAR] button is lit. (Remember that drawbars for a particular section are active only when the corresponding [CURRENT DRAWBAR] button is lit.)

The drawbar parameters that we mentioned earlier also apply to the Bass drawbar sounds. Refer to 'Drawbar Parameters' on page 113 for information about them.

BASS SUSTAIN/SOLO

When the BASS [SUSTAIN] button is lit, a release sustain is added to the Bass Tones played. This release time is variable:

Ê Press the [SUSTAIN] button in the BASS section; 'Bass Sustain' will appear in the LCD.

Ë Set the release time (0-10) with the [+]/[-] buttons. (Higher numbers create a longer release time.)

The Pedalboard also contains a Solo function which works in a similar way as with the keyboards (however, there are no Arpeggio modes):

Ì Press [NEXT] as necessary until the words 'Bass Sustain Solo Mode' appear in the LCD.

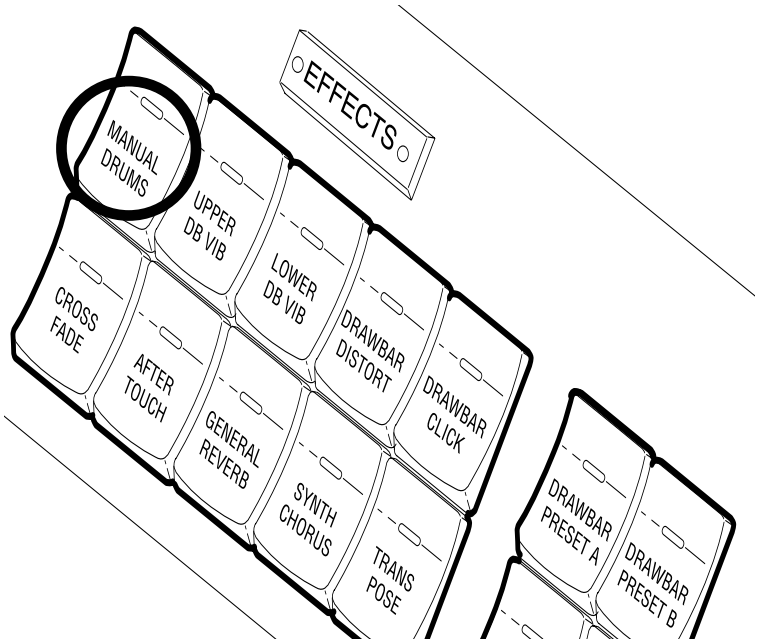
Í With the [+]/[-] buttons, select the desired Solo mode: High, Low, Last, First or Poly.

Refer to 'BASS [SUSTAIN] Parameters' on page 116.

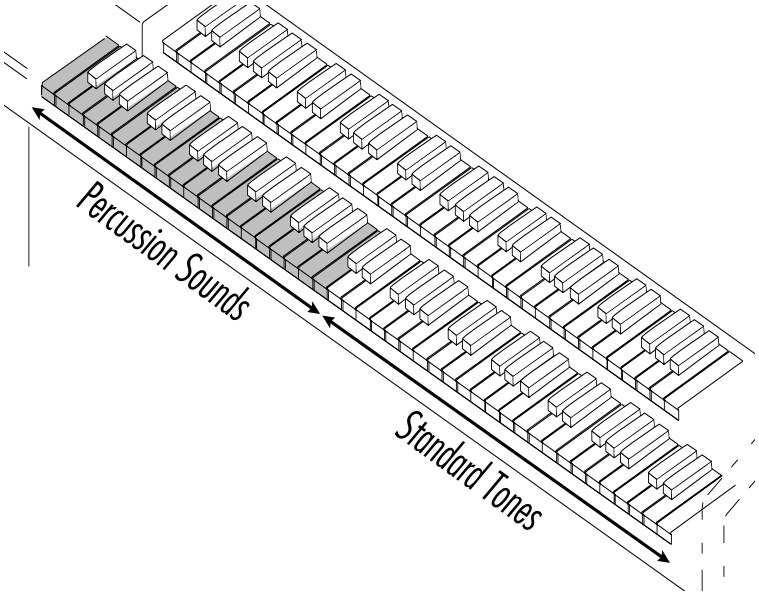
MANUAL DRUMS

In addition to all of its great Classic Organ, Drawbar/Tone-Wheel and Synth Tones, the W-5000 contains a wide variety of percussion sounds. These sounds are organized into Drum Sets and are easily selected.

Ê Press the [MANUAL DRUMS] button in the EFFECTS section (on the far left-hand side of the panel) :

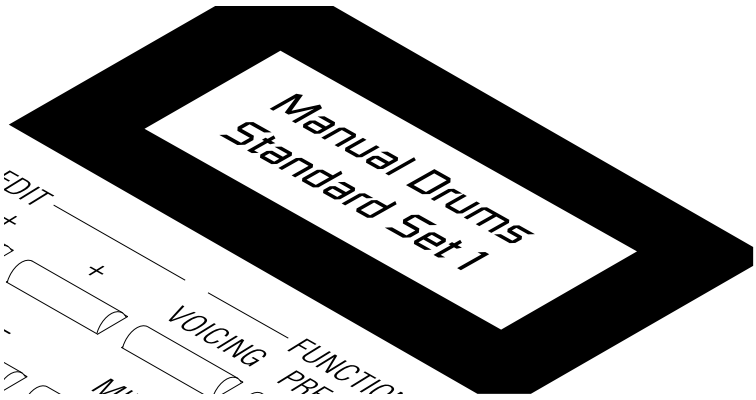


Ë Play the Lower manual (towards the left) and you will hear that a different percussion sound has been assigned to almost every key. (Note that some keys do not have an assigned sound.)



Ì (in the EDIT section) four or five times until the display stops changing. This simply moves the split point farther and farther to the right.

Í Press the [NEXT] button until you see the words 'Manual Drums Standard Set 1' in the LCD. By pressing the [+]/[-] buttons you can now select a different Drum Set (containing different sounds):



NOTE: As a default setting, the USER [2] drawbar has been assigned as a volume control for the Manual Drum sounds.

Î Press [MANUAL DRUMS] again to return to playing standard Tones across the entire Lower manual.

If you refer to page 117 you'll find the '[MANUAL DRUMS] Parameters'. All the parameters that relate to Manual Drums are listed there.

See page 146 for a list of the available Synth Drum Sets and the sounds they contain.

CHAPTER 3

Advanced Performance Features

ADVANCED PERFORMANCE FEATURES

Now that you've had a little hands-on experience, you should have a good understanding of the W-5000's basic operation. In this chapter, however, we'll move on to describe some of the instrument's more advanced features.

TONE MAPPING

The W-5000 contains three 'Tone Maps' (collections or arrangements of sounds): Organ, Synth and PR-300. The Organ Tone map contains the Classic Organ Tones. You select this map automatically whenever you press one of the Organ buttons. The Synth map contains most of the other instrument sounds (Pianos, Guitars etc.) and the PR-300 map contains the sounds found in Rodgers' PR-300 sequencer/sound module. (There is a fair degree of overlap of sounds in the Synth and

PR-300 Tone maps and this has to do with compatibility with other Rodgers and Roland products should they be used in conjunction with the W-5000.) (The sounds in the three Tone maps are presented starting on page 142.)

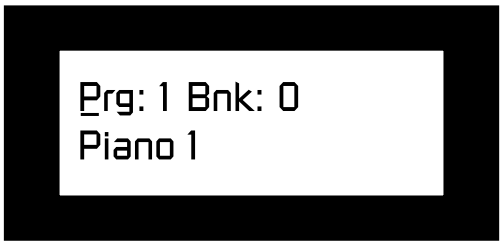
As described earlier in the section about Synth Tones, it is possible to assign any Tone in the W-5000 to any Tone button on the front panel. So although every button comes with a pre-assigned Tone, you can, if you like, custom configure the entire instrument to your liking!

The Tone select buttons are marked with general instrument categories like Piano, Organ and Guitar for example. If you look at the UPPER Tone select section for a moment, you'll notice that there are three Piano buttons (for example). Well, the W-5000 contains some 30 different piano-type sounds, including acoustic and electric varieties, and even harpsichord and clavinet! How do you go about selecting those different sounds and how do you assign them to the various buttons?! Good questions! Let's take a look.

TONE SELECTION AND MAPPING

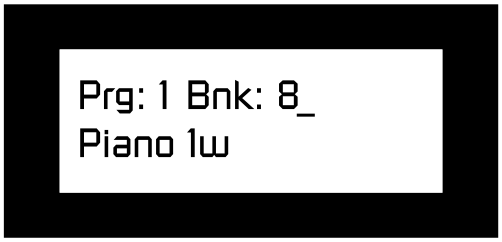
In simple terms, within each Tone Map (Organ, Synth and PR-300) sounds in the W-5000 are organized by Program Number (abbreviated as 'Prg' in the LCD) and Bank Number ('Bnk'):

Each Program Number represents a basic instrument sound and the Bank Number represents a variation of that basic sound. For example, if you press the [PIANO 1] button in the UPPER section (which normally selects the PR-300 Tone Map), the display will read:



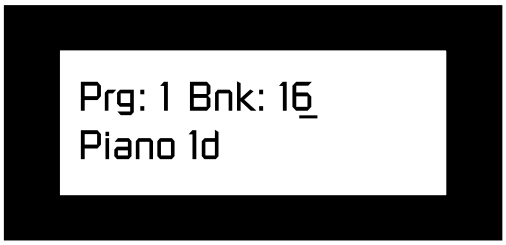
The Tone ‘Piano 1’ is found at Program Number 1 and Bank Number 0 in the PR-300 Tone map. This Tone is assigned to the [PIANO 1] button at the factory.

If you press [NEXT] (to move the underline cursor to the Bank field) and then press [+], the Tone 'Piano 1w' will appear. This is the first variation of the basic Piano sound:



The Tone ‘Piano 1w’ (the ‘w’ stands for ‘warm’) is found at Program Number 1 and Bank Number 8 in the PR-300 Tone map. This Tone is the first variation of ‘Piano 1’.

Press the [+] button again and the Tone 'Piano 1d' will appear (Bank Number 16):



The Tone ‘Piano 1d’ (the ‘d’ stands for ‘dark’) is found at Program Number 1 and Bank Number 16 in the PR-300 Tone map. This Tone is the second variation of ‘Piano 1’.

Don't worry that the Bank Numbers don't increase by one each time, that's just the way this system works!

So basically, to select any Tone you see in a particular Tone map (starting on page 139), you simply select the Program Number and then the Bank Number.

NOTE: To switch among the three Tone maps, you simply press any Tone select button and then press the [NEXT] button until the word 'Map' appears in the LCD. Use the [+] and [-] buttons to select the desired Tone map: Synth, PR-300 or Organ. The Synth map is normally selected whenever you press a Tone button and the Organ map is normally selected when you press an Organ button.

Note also that when switching between Tone maps, the Prg and Bnk numbers may automatically change to reflect the closest Prg or Bnk Number of the newly selected map.

OK, suppose you want to assign the Tone 'Hyper Alto' to the [PIANO 2] button in the UPPER Tone select section:

Ê Press the [PIANO 2] button in the UPPER section.

Ë Select the Tone 'Hyper Alto' (Program Number 66, Bank Number 8 in the Synth Tone map).

Do this by pressing the [++] button (which moves you in jumps of eight) until you reach Program Number 65, then increase the Program Number to 66 by pressing the [+] button. Now press [NEXT] to move the cursor to the Bank field. Press [+] and Bank 8 is selected. (Again, don't worry that the Bank numbers don't increase in simple numeric order, it's just the way things are!)

Ì That's it! 'Hyper Alto' is now assigned to the [PIANO 2] button. Press any other Tone button in the UPPER section, play a few notes, then go back to [PIANO 2]; 'Hyper Alto' will be there! (Note, however, that unless you save your custom Tone map by storing it in a Preset (see page 58), the default (factory) Tone map will be in effect whenever you power up the instrument.)

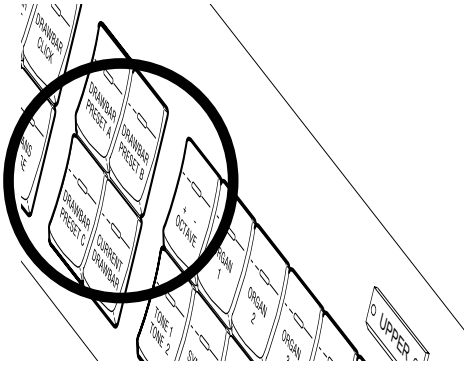
NOTE: You probably wouldn't want to put a saxophone sound under a Piano button (it would likely be better to put it under one of the Reed buttons), but the flexibility is there.

By assigning the Tones you use most often to specific Tone buttons, you'll be able to instantly recall them without having to dig through layers of Program and Bank Numbers. In this way, you can configure the entire instrument to suit your particular tastes and requirements.

MORE PERFORMANCE FUNCTIONS

In addition to the Tone select buttons, each of the UPPER, LOWER and BASS sections also contain a number of performance-related controls.

[DRAWBAR PRESET] BUTTONS (UPPER; LOWER; BASS)



Each section (UPPER, LOWER and BASS) contains a [CURRENT DRAWBAR] button - a button which activates the Tone-Wheel generator for the corresponding section. When this button is lit, you can use the drawbars to create real-time changes in the sound produced.

Well suppose you come across a killer sound that you don't want to lose. What do you do? You could write down the drawbar settings but that would be impractical. Instead, you can instantly save that current setting using a [DRAWBAR PRESET] button. (Note that the UPPER and LOWER sections each have three [DRAWBAR PRESET] buttons ([A], [B] and [C]), and the BASS section has just one.) Try the following example.

In the UPPER section (be sure any Tone select buttons are turned off):

Ê Press the [CURRENT DRAWBAR] button.

Ë Play the Upper manual and adjust the UPPER and PERC drawbars to your liking.

Ì Press and hold [DRAWBAR PRESET A] and then press the [CURRENT DRAWBAR] button.

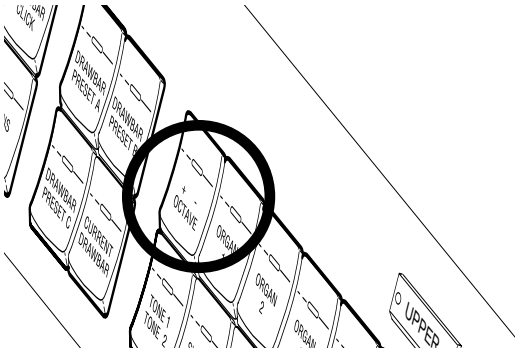
All of the current drawbar settings are now stored under the [DRAWBAR PRESET A] button and can be recalled at any time. Note that when [DRAWBAR PRESET A] is active the drawbars will not affect the sound; the drawbars are active ONLY when the [CURRENT DRAWBAR] button is lit. You can, of course, also create and store different settings for [DRAWBAR PRESET B] and [DRAWBAR PRESET C].

You can also copy the current or active drawbar settings from one manual to a Preset button of the other: Be sure the destination Preset button is off, then press and hold that Preset button and then tap the desired [CURRENT DRAWBAR] button from the source manual.

Several parameters (including drawbar click time and level) can be accessed whenever a [CURRENT DRAWBAR] or [DRAWBAR PRESET] button is pressed. These parameters are listed and explained on page 113. (When [CURRENT DRAWBAR] settings are 'captured' as described above, the other [CURRENT DRAWBAR] parameters are also copied into the preset. These parameters can be edited individually for each preset.) General on/off control of click sounds is controlled by the [DRAWBAR CLICK] button in the EFFECTS section.

[OCTAVE +/-] BUTTON (UPPER; LOWER; BASS)

Each section contains a [+/- OCTAVE] button which is used to shift the pitch of the selected keyboard an octave higher or lower:



When the button LED is...

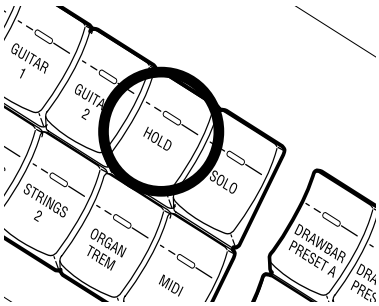
Dark : the keyboard is at normal pitch
Red : the keyboard pitch is one octave higher than normal
Green : the keyboard pitch is one octave lower than normal

NOTE: The [+/- OCTAVE] buttons do not affect Drawbar Tones. They do, however, affect Tone 1, Tone 2 and Solo Tones, as well as Classic Organ Tones and MIDI output. Notes sustained when a [+/- OCTAVE] button is pressed are not affected either.

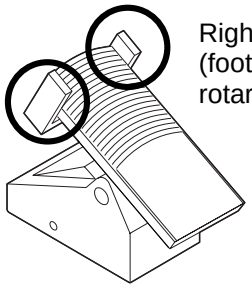
[HOLD] BUTTON (UPPER; LOWER; BASS)

Each section of the W-5000 has a [HOLD] button. Quite simply, whenever this button is lit in a particular section, notes played on the corresponding keyboard will be sustained* whenever the left 'kick' switch on the

Expression pedal is activated (i.e. moved and held to the left). The [HOLD] button also allows note latching when in arpeggio modes (page 36).



Left 'kick' switch (footswitch) controls the Hold function.

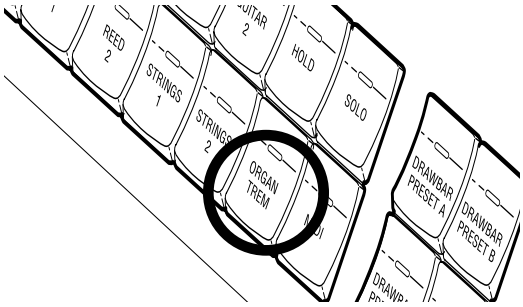


Right 'kick' switch (footswitch) controls rotary speed.

* Some instrument sounds - like acoustic piano or acoustic guitar - cannot be sustained indefinitely. When using the Hold function with sounds of this type, the notes will sustain for a short time and then decay slowly. Sounds like Strings, Brass instruments and synthesizer-type sounds can, however, be sustained for as long as the footswitch is held.

Note also that Drawbar Tones are not affected by the Hold function.

[ORGAN TREM] BUTTON (UPPER; LOWER)

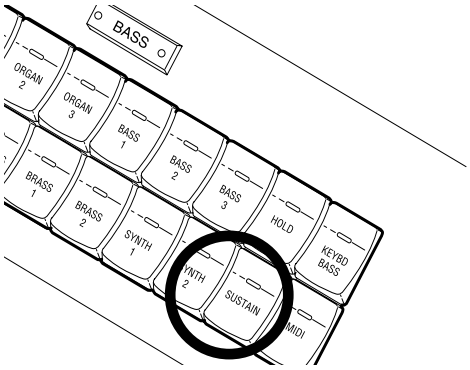


The Organ Tremolo effect adds a low frequency oscillation (LFO) to pitch, volume and filtering of Classic Organ Tones. This is a kind of vibrato effect. Organ Trem is active for a keyboard when the corresponding button's LED is lit.

Refer to '[ORGAN TREM] Parameters' on page 113 for a list of settings you can make for this effect.

[SUSTAIN] BUTTON (BASS)

When on (the button LED is lit), this function adds a release time to the Drawbar and Synth Bass notes played. This function affects both the Keybass section and Pedalboard Tones.



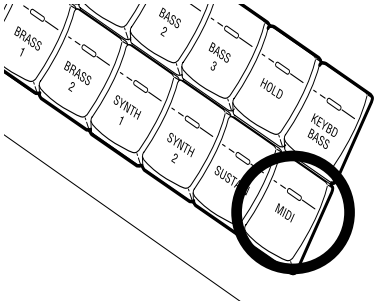
Ê Press the [SUSTAIN] button (in the BASS section).

Ë Set the release time (0-10) with the [++]/[--] or [+]/[-] buttons. (Higher numbers produce a longer sustain time.)

Note: If the Solo Mode (under the [SUSTAIN] button) is set to something other than 'Poly', new notes played will 'squelch' (i.e. cut off or clip) the previous notes. So the combination of a non-zero Sustain value and a monophonic Solo mode setting allow you to mimic the old style 'walking' organ bass sounds.

[MIDI] BUTTONS (UPPER; LOWER; BASS)

Each section contains a [MIDI] button which allows you to access the MIDI parameters for the corresponding section. Refer to 'Using MIDI' (page 96) for further information. (This button is somewhat like the 'MIDI Coupler' in other Rodgers Organs, but is much more flexible.)



All MIDI parameters are listed under '[MIDI] Parameters' starting on page 115.

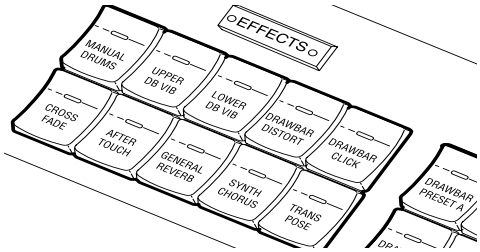
Note: The three MIDI 'layers' are selectable under the [VOICING] and [CONTROLS] buttons, so the MIDI outputs can act like any other layer. This provides extreme flexibility in controlling external sound modules.

CHAPTER 4

Effects

EFFECTS SECTION

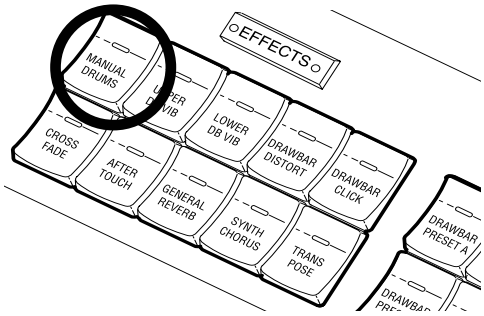
The 10 buttons in the EFFECTS section control a number of effects and special performance functions.



When an EFFECTS section button is pressed, the LCD will instantly show the current setting or value for the first parameter of that effect. When the value is displayed, the [+] and [-] buttons in the EDIT section can be used to change the value or setting. Keep in mind that some effects may have several parameters. Generally, these additional parameters can be selected by pressing the [NEXT] and [PREVIOUS] buttons. Then you can use the [+] and [-] buttons to set the value for that parameter.

NOTE: Even if a parameter for a particular effect is properly set, that effect will not be heard unless the corresponding EFFECTS button is currently lit.

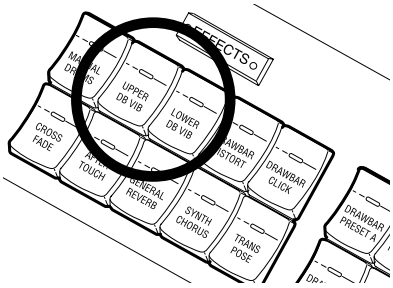
[MANUAL DRUMS] BUTTON



As we've already discussed the Manual Drums function, we won't repeat that information here. To refresh your memory, you may want to refer back to page 39. And if you'd like to see a list of the available Drum Sets and the sounds they contain, please refer to page 146.

All '[MANUAL DRUMS] Parameters' are listed on page 117.

[UPPER DB VIB] + [LOWER DB VIB] BUTTONS



These buttons (one for each manual) add low frequency modulation to the Upper and Lower Drawbar Tones to simulate Tone-Wheel type vibrato effects. (These buttons turn the effect on and off.) There are several settings you can make for this effect. Note that the same setting must be made for both the Upper and Lower manuals. As that is the case, changing one setting automatically changes the other. Note also that the Vib and Rotary effects are mutually exclusive; only one effect can be used at a time. Try setting the vibrato rate as a sample:

Ê Press the [UPPER DB VIB] button (so it lights).

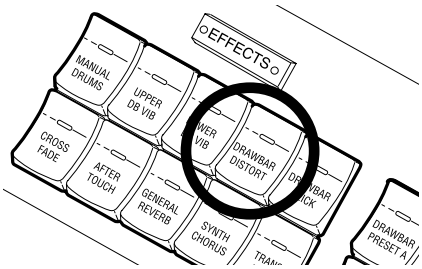
Ë Press [NEXT] as necessary until the word 'Rate' appears in the LCD.

Ì Set the vibrato rate (0-127) with the [+]/[-] (or [++]/[--]) buttons.

Refer to page 117 for a list of all the Upper and Lower Drawbar Vibrato parameters.

[DRAWBAR DISTORT] BUTTON

No contemporary organ sound would be complete without distortion! Pressing this button allows you to add simulated amplifier and speaker distortion to your sound. Try the following sample parameter:



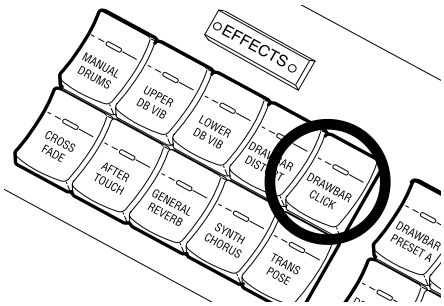
Ê Press the [DRAWBAR DISTORT] button (so it lights).

Ë Press [NEXT] as necessary until 'Threshold N' appears in the LCD.

Ì Set the threshold level (-10-10) with the [+]/[-] buttons. (Hold on to your ears when you get to the '10' setting!)

All '[DRAWBAR DISTORT] Parameters' are listed on page 118.

[DRAWBAR CLICK] BUTTON



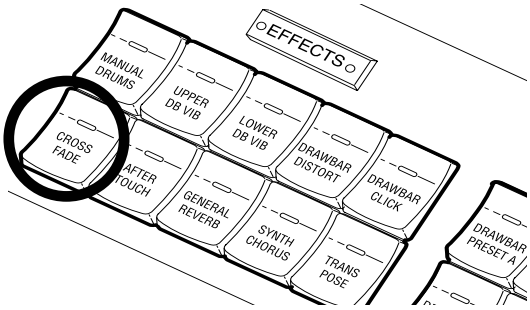
One of the things that made those old Tone-Wheel organs sound so unique was the keyswitch noise. Pressing the [DRAWBAR CLICK] button on the W-5000 allows you to add that distinctive quality to your own sound:

Ê Press the [DRAWBAR CLICK] button (so the LED lights).

Ë With the [+] and [-] buttons, set the 'Filt Cutoff' point (0-127). (This controls the overall brightness of the effect.)

Other Drawbar parameters (such as click level and time) can be accessed by pressing any [CURRENT DRAWBAR] or [DRAWBAR PRESET] button ([A], [B] or [C]). See page 113.

[CROSSFADE] BUTTON



The Crossfade function allows you to use what we call 'velocity-controlled mixing'. What this means is that when two Tones are selected for a keyboard, differing amounts of those two sounds can be heard depending on how hard you play the keyboard. For example, in the 'Normal' mode (automatically selected at power up), as you play harder both Tones increase in volume at the same rate. In the 'Switch' mode, however, playing softly allows you to hear only Tone 1. As you play harder and harder you'll reach a point at which the Tone 1 sound is no longer heard and only the Tone 2 sound is heard. Follow this procedure to try out the Velocity Switch mode:

Ê Select a Tone 1 and Tone 2 sound for the Upper manual. (Selecting Tones which have a very different character will highlight the effect.)

Ë Press the [CROSSFADE] button (so the LED lights).

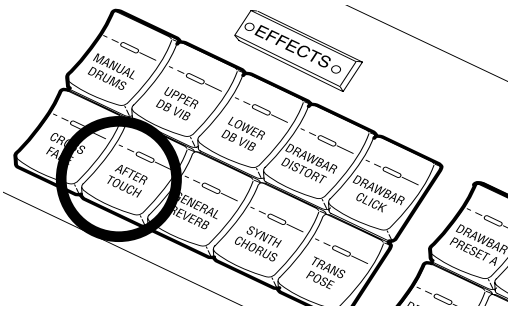
Ì Select 'Upper' as the keyboard. (Use the [+] button if it isn't already selected.)

Í Press [NEXT] until the word 'Mode' appears and press [+] to select 'Switch'.

Î Play the Upper manual softly and you should only hear Tone 1. Gradually play harder and harder. At some point you'll only hear Tone 2.

The other Crossfade modes and related parameters are listed and explained on page 119.

[AFTERTOUCH] BUTTON



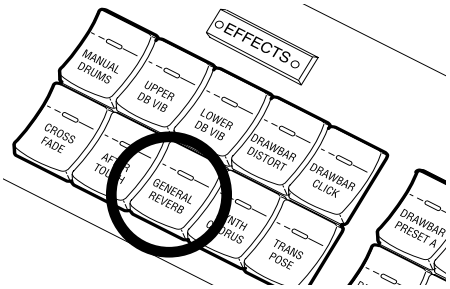
Aftertouch is modulation (or change) that occurs to a sound after the sound has been played. This modulation is created by playing a note and then exerting further pressure on the key once it's down (at the bottom of its travel). Only the W-5000's Lower manual is aftertouch sensitive.

The Aftertouch depth for Pitch, TVF Cutoff, Volume, LFO rate, LFO pitch depth, LFO TVF depth, LFO TVA depth and expression can be set. **All aftertouch parameters are set under the [CONTROLS] menu (see page 69).**

The [AFTERTOUCH] button is a general on/off switch for the aftertouch continuous controller.

Note: The aftertouch signal is also sent to the [CROSSFADE] button where it can be used in the '2nd Touch' mode. In this case, aftertouch works regardless of the on/off setting of the [AFTERTOUCH] button.

[GENERAL REVERB] BUTTON



Reverb is a digital effect which creates the illusion that you're playing in spaces of different sizes (like a concert hall or room, for example). That is, the sound decays naturally over time. Pressing the [GENERAL REVERB] button allows you to select the reverb time (which applies to all Tones):

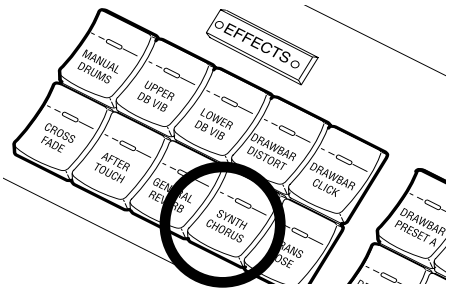
Ê Press the [GENERAL REVERB] button (so the button LED lights).

Ë Press [NEXT] as necessary to select the 'Time' parameter.

Ì With the [+] and [-] buttons set the Reverb Time (0-127). Higher numbers result in a longer reverb time.

There are several additional parameters that affect Reverb and these are listed on page 120.

[SYNTH CHORUS] BUTTON



Chorus is a digital effect which makes one instrument sound like several; as if they were playing in unison. The [SYNTH CHORUS] button allows you to set the amount of chorus for Synth Tones:

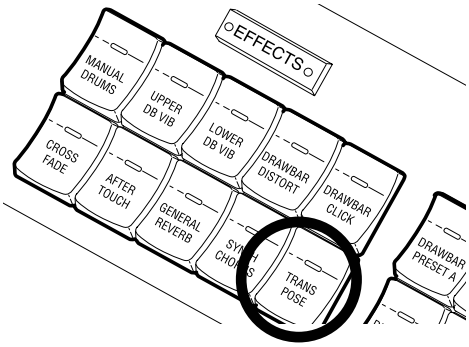
Ê Press the [SYNTH CHORUS] button (so its LED lights).

Ë Press [NEXT] as necessary to select the 'Level' parameter.

Ì Use the [+] and [-] (or [++]/[--]) buttons to set the Chorus Level (0-127). (Note that the other parameters must be set properly before any effect will be heard.)

All the Chorus parameters are listed on page 120.

[TRANSPOSE] BUTTON

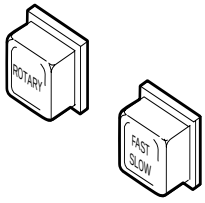


The transpose function allows you to shift (raise or lower) the pitch of both manuals and the Pedalboard:

Ê Press the [TRANSPOSE] button (so the button LED lights).

Ë Use the [+] and [-] buttons to raise and lower the pitch. The range is: C#-1-B0. (You can also hold the [TRANSPOSE] button (in the 'on' position) and press a key relative to Middle 'C' to set the transposition value.)

[ROTARY] + [FAST/SLOW] BUTTONS



While not strictly part of the EFFECTS group, these two buttons are nonetheless very important as effects, so we'll talk a bit about them here.

As you've probably already discovered, the [ROTARY] button activates the W-5000's rotary speaker simulator; a very special software system that generates those amazing vibrato sounds unique to real rotary speakers. What you probably don't know is that there are several parameters which you can set to customize the sound and speed of the rotary effect. As an example of what these parameters can do, try the following:

Ê Press the [ROTARY] button (so it lights).

Ë Press [NEXT] (as necessary) until the words 'Tw Level' appear in the LCD. (This particular parameter allows you to set the volume of the tweeter or high frequency driver.)

Ì While you play, press the [++] button so the tweeter volume increases. Set the volume where it sounds best (0-127).

The [FAST/SLOW] button and the right footswitch on the Expression pedal change the rotation speed of the speaker simulation. Again there are several parameters that affect this function so we'll just mention one which really demonstrates what they're all about.

Ê Press the [FAST/SLOW] button (so it lights).

Ë Press [NEXT] (as necessary) until the words 'Tw Rise Time' appear. (This parameter allows you to set the time it takes for the tweeter rotation speed to reach maximum from its minimum speed. Parameters for setting the minimum and maximum speeds are also available.)

Ì Set the rise time (0-9) with the [+]/[-] buttons. (Higher numbers create a longer rise time.)

Now as you press the [FAST/SLOW] button (or activate the right footswitch on the Expression pedal) the tweeter will speed up at the new rate you have set.

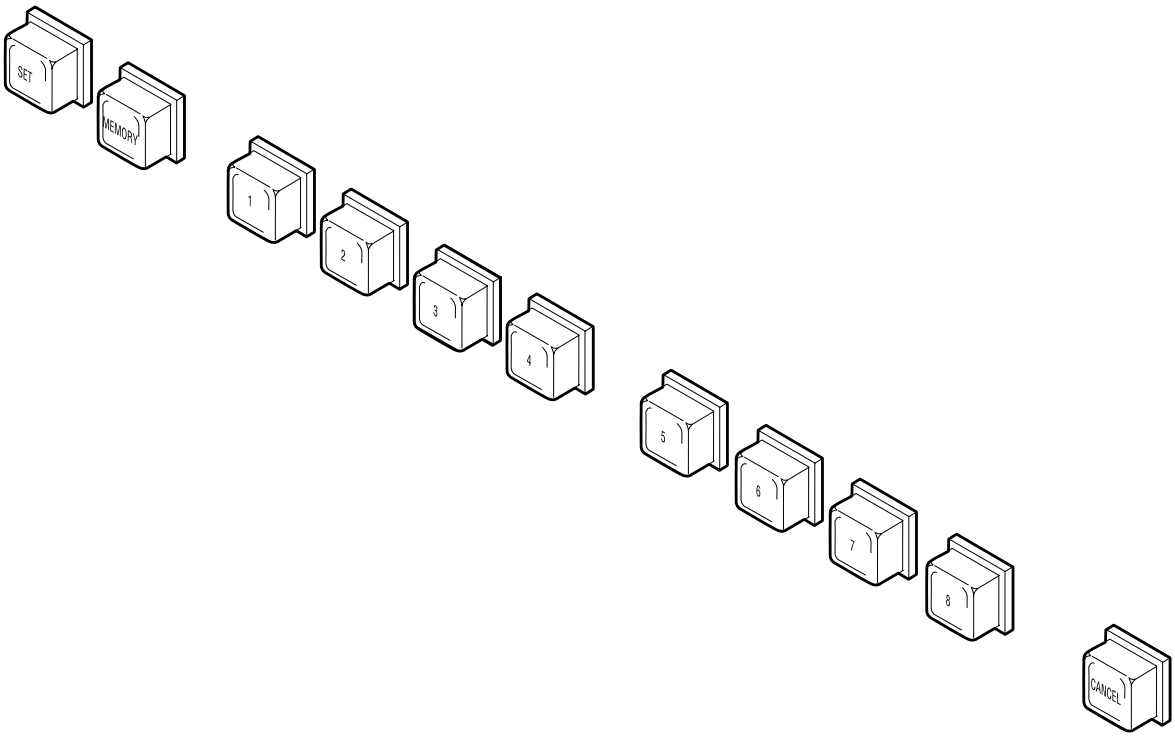
All of the Rotary parameters and their functions are listed on page 122. Fast/Slow parameters are listed on page 123.

CHAPTER 5

General Presets

GENERAL PRESETS

Along the front edge of the instrument - between the Upper and Lower manuals - is a series of 11 buttons (ignore [ROTARY] and [FAST/SLOW] for the moment). There are eight General Preset buttons ([1]-[8]; also called 'Pistons'), a [SET] button, a [MEMORY] button and a [CANCEL] button:



Each button allows you to store (and later instantly recall) all the panel settings that define the sound of the instrument (minus a few global settings, described later). This collection of settings, called a 'registration', includes Tone assignments, effect settings and function settings. (See page 150 for a complete list of the parameter settings you can store in a General Preset.)

A total of seventeen registrations can be stored in the W-5000's memory. The eight numbered buttons (pistons) can each contain a different registration, while the [MEMORY] button functions as a switch to alternate between two different banks (when this button is lit, the second bank is active). One additional registration can be stored under the [CANCEL] button. (Normally the [CANCEL] button is used to store a 'silent' registration, used to mute the instrument, or a default registration, automatically selected when the instrument is turned on.)

In order for registrations to be retained in memory when the instrument is turned off, they are also stored in 'files' in the W-5000's internal, non-volatile memory. As we will see later, these files can also be stored on floppy disk, greatly expanding the flexibility of your instrument.

The W-5000 comes with seventeen preset registrations in its non-volatile memory. When the instrument is turned on, these registrations are automatically loaded and can be selected with the numbered buttons. You can, of course, modify these registrations in whatever manner you wish and then reassign them to the numbered buttons. This is accomplished using the [SET] button.

To store a registration:

Ê Make all the necessary panel settings (Tone assignments, effects settings and function settings) until everything sounds just right.

Ë Be sure the [MEMORY] button is on or off, depending on which bank of registrations you wish to work with. (When lit, the second memory bank is active.)

Ì Hold the [SET] button and then press the General Preset button ([1]-[8]) you want to use.

Note: If the 'Memory Lock' parameter is 'On', the Preset memories are protected and saving a registration will not be possible. See [PRESETS] 'Memory Lock' (page 128) for more information.

Instantly your registration is stored under the General Preset button you pressed and can be recalled at any time. These registrations will remain in memory (even after you power down) until you change them. By creating and storing a series of registrations for different performance needs, you can easily set up the instrument for your next song or set; live performances become much simpler!

(You can also assign a registration to the [CANCEL] button if you like. Simply hold the [SET] button and press [CANCEL] and your registration will be stored as described above. Be aware, however, that there is only one [CANCEL] registration, not one for each memory bank.)

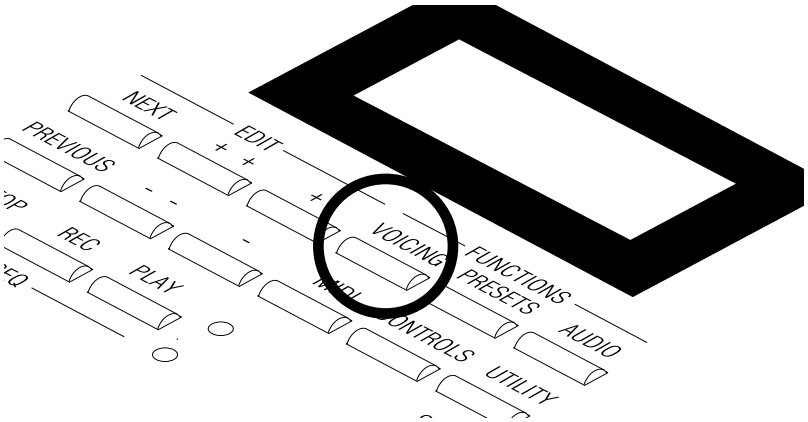
Once you've set all your General Presets the way you want, you can switch among them quickly during performance. You can, of course, still switch to different sounds using the various Tone buttons, but the General Preset feature lets you make much more complex changes during a performance, all at the touch of one button.

GLOBALS

As mentioned above, there are also a number of 'global' settings, some of which affect the sound, and some of which affect the function of the instrument. These settings are not stored as part of the registration associated with each General Preset button. Rather, these settings are stored separately because they do not change as you select different registrations. They are, however, stored in non-volatile memory (just like registrations) but there are separate operations (under the [PRESETS] menu) for loading and storing them.

PRESET STORAGE

The W-5000 contains several functions which allow you to save, load and protect important data. These functions - accessible through the [PRESETS] button in the FUNCTIONS section - are discussed here. Note that the various Reset functions require that the 'Preset Lock' switch be set to 'Off' (otherwise these operations will not be possible).



Presets
Pist Kybd: All, Upper, Lower, Bass

This function allows you to recall only those settings in a General Preset that pertain to one particular keyboard. Normally, it is set to 'All', but if you set it to 'Upper', 'Lower', or 'Bass', and then press a General Preset button ([1]-[8]), only that part of the registration will be loaded. Further, when complete, this setting automatically reverts to 'All', so it's a 'one-shot' function.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Pist Kybd' appear in the LCD.

Ì Press the [+]/[-] buttons to select the keyboard.

Í Press one of the General Preset ([1]-[8]) buttons.

Presets
Reset All (+)

If you'd like to restore all of the instrument's settings (including General Preset data and Global data) to their factory defaults, use this function. It overwrites all seventeen registration 'files' in the internal, non-volatile memory to their factory defaults, loads them into the buttons, and selects the first memory bank (the [MEMORY] button turns off). It also overwrites the 'global' file with the factory data and loads the various global settings from it.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë· Press [NEXT] (as necessary) until the words 'Reset All (+)' appear in the LCD.

Ì Press the [+] button to execute the reset function.

Presets
Reset Memory (+)

This function resets the eight registrations in the currently selected memory to their factory defaults. It overwrites the eight 'files' in the internal, non-volatile memory with their factory defaults, and loads them into the General Preset buttons.

Ê Be sure the [MEMORY] button is on or off, depending on which bank of registrations you wish to reset.

Ë Press the [PRESETS] button in the FUNCTION section.

Ì Press [NEXT] (as necessary) until the words 'Reset Memory (+)' appear in the LCD.

Í Press the [+] button to execute the reset function.

Presets
Reset Piston (+)

This function resets the currently selected piston to its factory default. It overwrites the 'file' in the internal, non-volatile memory with the factory default, and loads it into the selected General Preset button.

Ê Be sure the [MEMORY] button is on or off, depending on which bank of registrations you wish to reset, and that you've selected the piston you want to reset.

Ë Press the [PRESETS] button in the FUNCTION section.

Ì Press [NEXT] (as necessary) until the words 'Reset Piston (+)' appear in the LCD.

Í Press the [+] button to execute the reset function.

Presets
Reset Global (+)

This function resets the global settings to their factory defaults. It overwrites the global 'file' in the internal, non-volatile memory, and also loads all the settings contained in it.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Reset Global (+)' appear in the LCD.

Ì Press the [+] button to execute the reset function.

Presets
Reset Cancel (+)

This function resets the [CANCEL] button registration to its factory default. It overwrites the CANCEL 'file' in the internal, non-volatile memory with the factory default, and loads it into the [CANCEL] button.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Reset Cancel (+)' appear in the LCD.

Ì Press the [+] button to execute the reset function.

Presets
Reset Lock: On, Off

This function allows you to lock the Reset functions so that they cannot be activated by accident:

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Reset Lock' appear in the LCD.

Ì Press the [+]/[-] buttons to turn the lock 'On' or 'Off'.

Presets
Auto Load: On, Off

This function tells the W-5000 whether or not to select and load a folder when a floppy disk is inserted or removed from the disk drive. See the section entitled 'Storing W-5000 Data On Disk' on page 81 for further details.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Auto Load' appear in the LCD.

Ì Press the [+]/[-] buttons to turn this function 'On' or 'Off'.

Presets
Read Globals (+)

This function allows you to re-read the global settings stored in the internal, non-volatile memory, thus resetting any changes you've made to the individual settings since the instrument was turned on (or since you last wrote the globals).

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Read Globals (+)' appear in the LCD.

Ì Press the [+] button to read the global settings.

Presets
Write Globals (+)

This function allows you to write the global settings into the internal, non-volatile memory, thus recording any changes you've made to the individual settings so they'll still be there next time you turn the instrument on.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Write Globals (+)' appear in the LCD.

Ì Press the [+] button to write the global settings.

Presets
Load Globals (+)

This function allows you to load the global settings stored in the global file on a floppy disk.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Read Globals (+)' appear in the LCD.

Ì Press the [+] button to load the global settings.

Presets
Save Globals (+)

This allows you to save the global settings to a floppy disk.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Save Globals (+)' appear in the LCD.

Ì Press the [+] button to save the global settings.

Presets
Load Cancel (+)

This function allows you to load a CANCEL registration file stored on a floppy disk. It is written over the CANCEL 'file' stored in non-volatile memory, and loaded into the [CANCEL] button.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Load Cancel (+)' appear in the LCD.

Ì Press the [+] button to load the CANCEL registration.

Presets
Save Cancel (+)

This function allows you to save the CANCEL registration to a floppy disk. It copies the CANCEL 'file' from internal, non-volatile memory to the corresponding file on the disk.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Save Cancel (+)' appear in the LCD.

Ì Press the [+] button to save the CANCEL registration.

Presets
Memory Lock: On, Off

This function allows you to lock the internal, non-volatile memory so that it cannot be modified by accident. When locked, you cannot store General Preset registrations or a CANCEL registration.

Ê Press the [PRESETS] button in the FUNCTION section.

Ë Press [NEXT] (as necessary) until the words 'Memory Lock' appear in the LCD.

Ì Press the [+]/[-] buttons to turn the lock 'On' or 'Off'.

Presets
Delete Folder (+)

This function allows you to delete a folder from a disk. See the section entitled 'Storing W-5000 Data On Disk' on page 81 for further details.

Ê Press the [MEMORY] button, to display the currently selected folder.

Ë Press the [+]/[-] buttons to select the folder you wish to delete. Note that you cannot delete the Internal folder.

Ì Press the [PRESETS] button in the FUNCTION section.

Í Press [NEXT] (as necessary) until the words 'Delete Folder (+)' appear in the LCD.

Î Press the [+] button to turn the folder 'On' or 'Off'.

CHAPTER 6

Voicing & Controller Settings

VOICING AND CONTROLLER SETTINGS

Your W-5000 contains a number of controllers; physical controls that you use to play and manipulate sound. In this chapter we'll tell you how you can change the settings for these controllers and even assign different functions to them if you like. We'll also discuss how you can edit (change the basic character of) the instrument's Synth sounds. Before we begin with Controller and Voicing settings, however, let's look at a more basic setting.

KEYBOARDS

These are your primary controllers! With a simple setting or two, you can achieve a variety of results.

The keyboard sensitivity settings allow you to have your keyboards respond in different ways. There are three settings to choose from (each representing a different response). To try out these settings, follow the instructions below.

Ê Press the [UTILITY] button.

Ë Press the [NEXT] button until the words 'Upper Sens' appear in the LCD.

Ì Use the [+]/[-] buttons to select one of the three sensitivity settings for the Upper keyboard: High, Norm or Low.

Í Press the [NEXT] button (as necessary) to select 'Lower Sens' and then select an appropriate setting for the Lower keyboard.

Î Press [NEXT] (as necessary) to select 'Pedal Sens' and then select a setting for the Pedalboard.

These settings allow you to set the instrument to match your general playing style. (These settings are stored as part of the Global data.)

Select 'Low' if you normally play hard. Choose the 'High' setting if you tend to play more softly. In addition, the Pedal sensitivity values allow for a certain minimum velocity. To provide finer control over sensitivity, or to set a layer or keyboard to a constant (fixed) velocity, use the [VOICING] button (explained later in this chapter). The [VOICING] button's control of sensitivity is adjustable for each layer and can be stored under a General Preset.

CONTROLLERS

Controllers are the physical controls on the instrument (such as the [Bender/Modulation] lever or the right kick switch) that you can use to manipulate or control the sound as you play. Basically there are two kinds of controllers; continuous and switched. A continuous controller (like the [Bender/Modulation] lever) can produce a continuous or smooth change in the sound from the controller's zero (off) position all the way to its maximum setting if you want. By contrast, a switched controller (like the right kick switch on the Expression pedal) is either on or off; either the effect it controls is heard or it isn't.

The continuous (continuously variable) controllers are:

- Bend R : right side of the [Bender/Modulation] lever
- Bend L : left side of the [Bender/Modulation] lever
- Mod : Modulation
- AfterT : aftertouch; Lower manual only
- Exp : Expression pedal
- User1 : USER [1] drawbar
- User2 : USER [2] drawbar
- ExtEXP : external Expression pedal connected to the PEDAL jack (rear panel)

The switched (on/off) controllers are:

- LeftFS : Left footswitch; the left 'kick' switch on the Expression pedal
- RghtFS2 : Right footswitch; the right 'kick' switch on the Expression pedal
- Pedals : user-selectable bass pedals**
- ExtFS : an external footswitch connected to the SW1 jack (rear panel)

** The 'Pedals' option allows you to use any one of the Pedalboard pedals as a controller. When a pedal is selected as a controller it does not produce sound, but instead functions as a switched controller for the assigned function. Pedals are selected with the 'Pedal Control' parameter found under the [UTILITY] button. See '[UTILITY] Parameters' on page 136 for more information.

CONTROL DESTINATIONS

Control 'Destinations' are the various aspects of the sound (such as pitch, volume, resonance etc.) that can be connected to (that is, assigned to) the various controllers mentioned above. These destinations can be (for the most part) edited through the [VOICING] button menu and/or assigned (connect to) a physical controller through the [CONTROLS] button menu. There are three basic kinds of destination; switchable, voicable and mappable.

- **Switchable** control destinations are either on (1) or off (0) and they cannot be edited through the [VOICING] button menu. They can, however, be connected to any of the controllers through the [CONTROLS] button menu by setting the corresponding value to one (1; ON) instead of zero (0; OFF). If a switchable destination is assigned to more than one controller (which is possible), then using any one of those controllers will activate the destination. If a switchable destination is connected to a continuous controller, that controller must be moved to its maximum position to activate the destination, and then returned to its zero position to turn the destination off.

- **Voicable** destinations are variable. They can only be edited through the [VOICING] button menu. Note that because of their particular nature, these destinations cannot be assigned to any of the controllers.

- **Mappable** destinations are also variable. These destinations appear in both the [VOICING] and [CONTROLS] button menus. Most of these destinations have a range of -10-10 in the [VOICING] button menu, representing deviations from the normal value, and a range of -25-25 in the [CONTROLS] button menu, representing the amount or level of the effect added to the [VOICING] value when the

controller is at its maximum position. Basically this gives you a two-level control system, not unlike the Gain and Master Gain controls on some amplifiers, for example.

The available destinations (and setting ranges) are:

Mappable Destinations	Values	Voicable Destinations	Values	Switchable Destinations	Values
Pitch (semitones)*	-12-12	Vel Sense	-10-10	Sustain	0, 1
Volume	-20-20	Vel Offset	-10-10	Sostenuto	0, 1
Vib Depth	-25-25	Glide Time	-10-10	Soft	0, 1
Vib Rate	-25-25	Vib Delay	-10-10	Glide**	-1, 0, 1
Cutoff	-25-25			Rotary S/F	0, 1
Resonance	-25-25				
Attack	-25-25				
Decay	-25-25				
Release	-25-25				
Pan	-16-16				
Seq Volume	-20-20				
Drum Volume	-20-20				
Detune (in 'cents')	-25-25				
Hz Detune (x 0.2 Hz)	-25-25				

* Pitch is a mappable destination that is NOT available under the [VOICING] button.

** Glide is a switchable control destination that is also found under the [VOICING] button because you may want it on all the time. In addition, its [CONTROLS] destination can be set to '-1'. If the [VOICING] destination is '1' and the [CONTROLS] destination is '-1', the physical controller will function backwards.

Note: The switched destination 'Sustain' is also routed through the [HOLD] button in each section (UPPER, LOWER and BASS). Therefore, the destination will not be affected unless the [HOLD] button is lit.

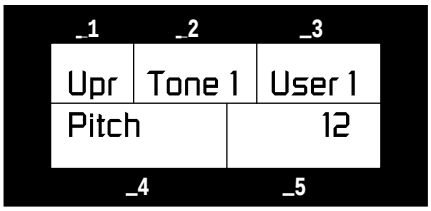
Note: The aftertouch controller is routed through the [AFTERTOUCH] button first, before being assigned to a layer or a destination. Therefore, aftertouch works only when the [AFTERTOUCH] button is lit. However, it will be routed to the [CROSSFADE] button regardless of the setting of the [AFTERTOUCH] button.

Just to recap, the point of all this is that you can choose any of the instrument's controllers, assign virtually any destination (effect) to it, and have the result apply to a particular layer within a particular keyboard. The number of possible combinations is amazing!

SETTING THE CONTROLLERS

The best way to understand what all of this means is to try an example. Once you've done that you'll see what we mean!

In the LCD, [CONTROLS] parameters are presented in five fields: one for keyboard selection, layer selection, controller selection, destination selection and finally for a depth value:



1 Keyboard field
2 Layer field
3 Controller field
4 Destination field
5 Value field

OK, suppose you want to be able to control the pitch of Tone 1 in the Upper manual using the USER [1] slider. (First be sure you have a Tone 1 sound selected otherwise you won't hear anything.) Here's what you do:

Ê Press the [CONTROLS] button.

Ë With the [++] and [--] buttons, select 'Upr' (the keyboard) in the first field.

Ì Press [NEXT] to move to the next field. With the [++] and [--] buttons, select 'Tone 1' (the layer).

Í Press [NEXT] to move to the next field. With the [++] and [--] buttons, select 'User 1' (the controller).

Î Press [NEXT] to move to the next field. With the [++] and [--] buttons, select 'Pitch' (the destination).

Ï With the [+] button, set the value to '12' (the maximum value). (This will really show the effect well!)

Now, as you play the Upper manual (with Tone 1 selected), move the USER [1] slider in and out. You should hear the pitch of Tone 1 rise and fall as you do.

Note that some of the fields allow you to select all the available options (such as all the controllers or all the layers). If you select 'All' in more than one field, the value field may display a series of question marks ('????'). This just means that the values for all of the selected options are different from one another. As you start to assign a new value, it will be displayed in the value field because all of the values will be reset to this new value.

For a complete list of the all the [CONTROLS] parameters and their functions, please refer to page 124.

Note: The 'Rotary S/F' switchable destination and the 'Seq Volume' and 'Drum Volume' mappable destinations are global in nature. In other words, they work the same regardless of the settings of the Keyboard or Layer fields. Also note that the 'MIDI' layer is the external sound module controlled by the UPPER, LOWER and BASS [MIDI] buttons. Some controls may require a GS Format sound module before you can hear the results.

VOICING

The Voicing parameters are provided for those who wish to customize the W-5000's Synth or Drawbar Tones.

The available voicing parameters are as follows:

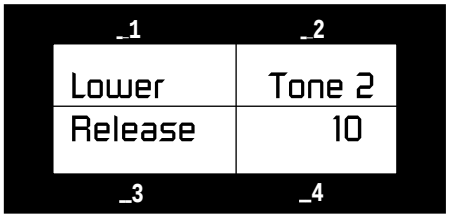
Keyboards: Upper, Lower, Pedal, All
Layers: Tone 1, Tone 2, Drawbar, MIDI, Solo, All

Mappable Destinations	Values	Voicable Destinations	Values	Switchable Destinations	Values
Volume	0-20	Vel Sense	-10-10	Sustain	-
Vib Depth	-10-10	Vel Offset	-10-10	Sostenuto	-
Vib Rate	-10-10	Glide Time	-10-10	Soft	
Cutoff	-10-10	Vib Delay	-10-10	Glide	0, 1
Resonance	-10-10			Rotary S/F	
Attack		-10-10			
Decay		-10-10			
Release	-10-10				
Pan	-10-10				
Seq Volume	0-20				
Drum Volume	0-20				
Detune (in 'cents')	-25-25				
Hz Detune (x 0.2 Hz)	-25-25				

Note: 'Pitch' is not available under the [VOICING] button as a mappable or voicable destination because each Tone button has an octave shift parameter, and it is unlikely that you would want to shift a layer's pitch in semitones. Therefore, please use 'Detune' and 'Hz Detune' to set the pitch of a layer.

Again, an example will best illustrate how the Voicing functions work. You'll see that they are set in a manner very similar to the Controls parameters.

In the LCD, [VOICING] parameters are presented in four fields: one for keyboard selection, layer selection, destination selection and finally for a depth value.



1 Keyboard field
2 Layer field
3 Destination field
4 Value field

Suppose you want to set the release time for Tone 2 in the Lower keyboard. (Be sure you have a Tone 2 sound selected otherwise you won't hear anything.) Here's what you do:

Ê Press the [VOICING] button.

Ë With the [++] and [--] buttons select 'Lower' (the keyboard) in the first field.

Ì Press [NEXT] to move to the next field. With the [++] and [--] buttons select 'Tone 2' (the layer).

Í Press [NEXT] to move to the next field. With the [++] and [--] buttons select 'Release' (the destination).

Î With the [+] and [-] buttons, set the value to '10' (the maximum value). (Negative numbers in the value field will actually 'clip' the sound you play to make it very short.)

Now as you play the Lower keyboard you'll hear that the notes you play have a very long release time; that is, they decay very slowly over time.

For a complete list of the [VOICING] parameters and what they do, please refer to page 121.

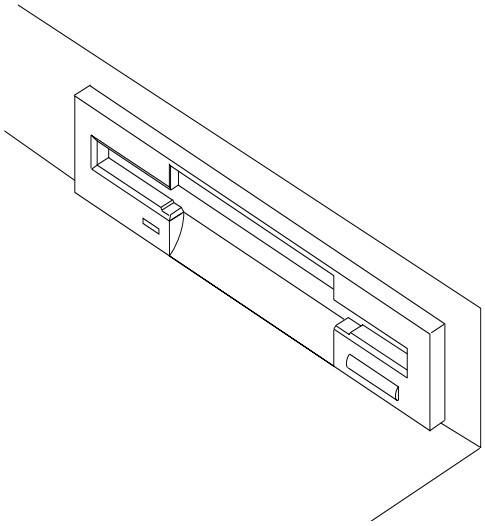
Note: The 'MIDI' layer is the external MIDI sound module controlled by the UPPER, LOWER and BASS [MIDI] buttons. Some voicing parameters require a GS Format sound module before the results can be heard.

CHAPTER 7

The Floppy Disk Drive

THE FLOPPY DISK DRIVE

Your W-5000 includes a 3.5" floppy disk drive (located just above the LCD):



This drive can be used to play commercially available song data (GM/GS Format/SMF data), record your keyboard performances, or store W-5000 data (General Preset or Global data). Data from one W-5000 can also be stored on disk and used to configure another W-5000; after all, it's somewhat easier to carry a floppy disk than a W-5000!

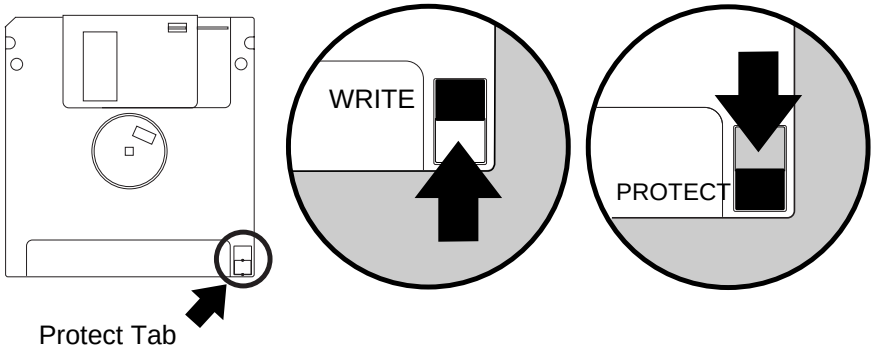
Before we begin describing these functions, however, we need to discuss a few things in regard to floppy disks and the drive itself. (We recommend that you use 2HD disks as they hold more data than the 2DD type, and they work faster too.)

HANDLING FLOPPY DISKS

Floppy disks contain a plastic disc coated with magnetic particles (like the tape inside an audio cassette). This is the storage medium for all the data. Because this medium is rather delicate, you should always observe the following when using floppy disks:

- Never touch the coated surface inside a disk; finger prints or dust can render a disk useless. Never pull back the spring-loaded shutter.
- Never expose floppy disks to strong magnetic fields (such as those generated by loudspeakers, for example). A magnetic field can instantly erase all the data on a disk.
- Do not expose floppy disks to temperature extremes (e.g. direct sunlight in an enclosed vehicle). Recommended temperature range: 50°-110° F (10°-50°C).
- Do not store or use floppy disks in dusty or humid areas.

- Floppy disks contain a 'write protect' tab which protects your data from accidental erasure. To preserve your data, keep the tab in the 'PROTECT' position. Move the tab to the 'WRITE' position only when you wish to add new data to the disk:

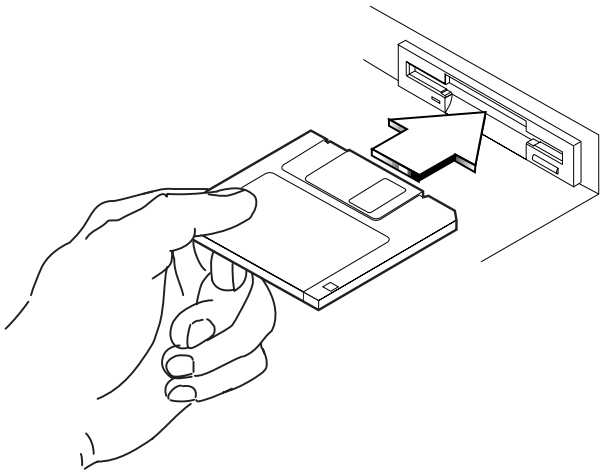


This protect tab, along with the 'Lock' parameters (found under the [PRESETS] button) help protect your valuable data from accidental erasure.

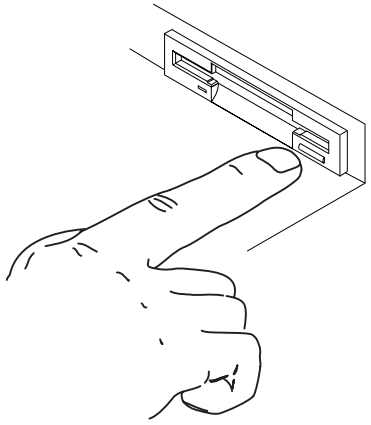
- All important data should be copied onto backup disks. This provides a complete duplicate in the event the original disks are lost or damaged.
- The identification label should be firmly fixed to the disk. Should the label come loose while the disk is in the drive, it may be difficult to remove the disk.
- Disks not in use should be placed in their storage cases.

HANDLING THE DISK DRIVE

- Avoid using the drive in dusty areas, or areas of high humidity (e.g. condensation). High humidity can adversely affect the operation of the drive and/or damage floppy disks. When the instrument has been transported, allow it to warm to room temperature before attempting to use the drive.
- To insert a disk into the drive (label side up; metal shutter first), push it gently but firmly until it clicks into place:



To remove a disk from the drive, press the Eject button firmly. Do not use excessive force to remove a disk lodged in the drive:



- Never attempt to remove a disk from the drive while the drive is operating (the activity LED is lit); this could result in damage to both the disk and the drive.
- Unless specifically instructed to do otherwise, always remove any disk from the drive before powering the instrument up or down.
- To maintain the drive in good working order, make occasional use of a commercially available disk drive cleaning kit.

FORMATTING A FLOPPY DISK

Before any disk (new or previously used) can be used in the W-5000 for the first time, it must be formatted (prepared). To format a disk, follow this procedure:

Ê Be sure the disk's write protect tab is in the 'WRITE' position.

Ë Insert the disk into the drive.

Ì Press the [UTILITY] button in the FUNCTIONS section (under the LCD).

Í If you're using an HD disk (which we recommend), press the [NEXT] button repeatedly until the display reads: Format HD Dsk (+). If you're using a DD disk, press [NEXT] until the LCD reads: Format DD Dsk (+).

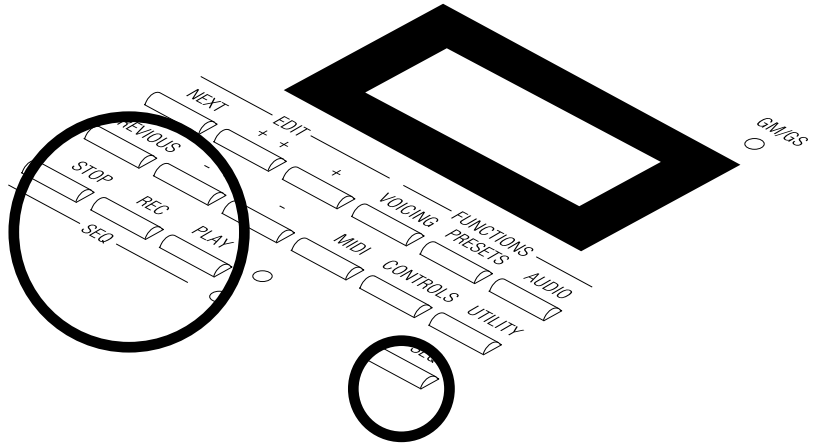
Î Press the [+] button to format the disk.

NOTE: Formatting a disk will erase all of the data (if any) previously stored on it. Be sure the disk you want to use doesn't already contain important data!

USING THE SEQUENCER

LISTENING TO A SONG ON DISK

A sequencer is simply a special kind of recording device for MIDI instruments. This same sequencer can also play commercially available song data. The W-5000's sequencer controls are found in the SEQ (Sequencer) section under the LCD:



If you have song data on a disk and you'd like to hear it, follow this procedure:

Ê Insert the disk into the drive (label side up; metal shutter first).

Ë Press the [SEQ] button (in the FUNCTIONS section).

Ì Press the [NEXT] button until 'Sequence Select' appears in the LCD.

Í Press the [+] or [-] button to select the different songs on the disk. (The LCD will display as much of the song title as there is room for. If the disk does not contain title information, then file names will be shown instead; 00_mid, 01_mid, etc.)

Î Press the [PLAY] button. (LEDs beside the [PLAY] button will indicate the playback tempo.)

Ï Control the volume using the USER [1] assignable drawbar.

PLAYBACK CONTROLS

PAUSE

You can temporarily pause playback by pressing [PLAY]. Press [PLAY] again to resume playback.

STOP

If you press [STOP], playback will stop and the song will be reset to the beginning.

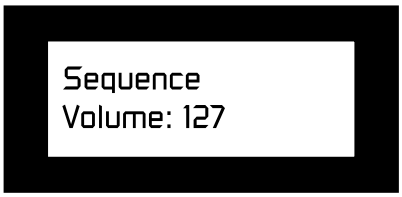
SEQUENCE TEMPO

It's possible to change the playback tempo of a song while playback is in progress (or before playback begins). Use the [NEXT] and [PREVIOUS] buttons (as necessary) to select the tempo screen:

Use the [+] and [-] buttons to change the playback tempo (34—312 beats per minute). Note also that the tempo will automatically change in response to any received MIDI clock messages, if the external MIDI Sync Input is enabled.

SEQUENCE VOLUME

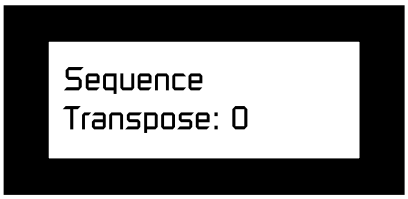
It's possible to change the volume of a song while playback is in progress. Use the [NEXT] and [PREVIOUS] buttons (as necessary) to select the sequence volume screen while the song is playing:



Use the [+] and [-] buttons to change the playback volume (0—127). Note that this function can be set automatically if a controller is mapped to the Seq Volume destination under the Controls functions.

SEQUENCE TRANSPOSE

You can also transpose (change) the pitch of a song while the playback is in progress. Press the [NEXT] or [PREVIOUS] button until the sequencer transpose screen appears:



Use the [+] and [-] buttons to change the transposition setting (in semi tone steps; -11—11;.’0’ means standard pitch).

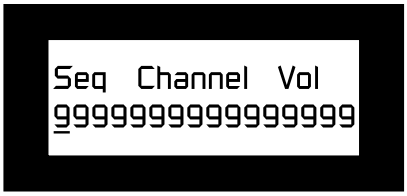
SEQUENCE CHANGE TEMPO

When activated, this function sets the tempo of the current sequence to the value set under the Sequence Tempo parameter value.

Press the [+] button to activate this function.

SEQUENCE CHANNEL VOLUME

It's also possible to make individual volume adjustments for each channel. Press the [NEXT] or [PREVIOUS] button until the channel volume screen appears in the LCD:

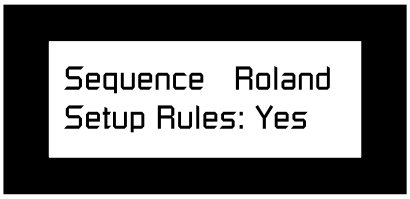


This screen displays volume settings (0—9) for each of the 16 available MIDI channels, '0' is off and '9' is maximum.

Use the [NEXT] and [PREVIOUS] buttons to move from channel to channel. Set the volume for each channel with the [+]/[-] buttons.

ROLAND SETUP RULES

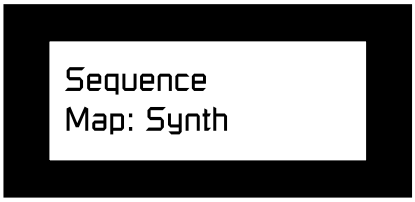
If you are using Roland music data, this parameter will instruct your W-5000 to comply with the data's specific requirements. Press the [NEXT] or [PREVIOUS] button until the Setup Rules screen appears in the LCD:



Press the [+] button to activate this function.

SEQUENCE MAP

This parameter allows you to select which Tone map will be used to playback your song data. Press the [NEXT] or [PREVIOUS] button until the Map screen appears in the LCD:



Select 'Synth' (with the [+] and [-] buttons) if you are playing song data created on the W-5000

Select the 'PR-300' option if you're using commercially available song data.

For a complete list of SEQ``````` parameters, please refer to page 128.

RECORDING YOUR PERFORMANCES

The W-5000's sequencer allows you to make recordings of your own keyboard performances. Be aware, however, that this unit is only capable of 'single-pass' recording; you can't go back and add more things to your performance. (For information on multi-track recording, please refer to page 105.)

Ê Insert a formatted disk into the drive. (Be sure the disk's protect tab is set to 'WRITE'.)

Ë Press the [SEQ] button.

Ì Press the [NEXT] button (as necessary) to select the sequence tempo screen. Set the desired tempo with the [+]/[-] buttons.

Í If you're recording a song with a time signature other than 4/4 you'll have to press the [NEXT] button to select the time signature screen. Set the desired time signature with the [+]/ [-] buttons. (Use the [NEXT]/[PREVIOUS] buttons to move between the two time signature fields.)

Î Press [NEXT] to select the metronome volume parameter. Set the volume with the [+]/[-] buttons.

Ï When you're ready to start recording, press the [REC] button. The metronome will start clicking (if you have the volume turned up) and the LEDs beside the [PLAY] button will flash at the set tempo. Play your piece.

Ð Press the [STOP] button when you're finished.

Ñ Press [PLAY] to hear what you've just recorded.

If you really don't like what you hear, press [NEXT] to select the 'Delete Song' parameter. Press the [+] button to erase your performance. Go back and record your song again if you like.

Each time you record, another file is created on the disk. All real-time controls, notes, and General Preset storable parameters are saved in the file. Some effects are common (shared) between real-time performance and playback. These effects are therefore turned on and off when a specific song is selected. These effects are 1) [UPPER DB VIB] on/off, [LOWER DB VIB] on/off, and all the drawbar vibrato parameters, 2) [ROTARY] on/off, [FAST/SLOW], and all their parameters, 3) [DRAWBAR DISTORT], and all its parameters, 4) The Click Cutoff parameter behind [DRAWBAR CLICK], but not on/off, 5) [REVERB] on/off and all its parameters, but only as they apply to the Classic Organ and Drawbar sounds and 6) The Aux Volume control destination, in both the CONTROLS and VOICING menus. The Synth reverb is independent between real-time and playback.

Other than this, there is no interaction between realtime and playback, and the sequence seems to control a 'parallel' instrument. The UPPER, LOWER and BASS [MIDI] button's output is also recorded.

STORING W-5000 DATA ON DISK

REGISTRATIONS

As explained in Chapter 5, General Presets, all the panel settings that define the sound of the instrument can be collected together into a 'registration' and assigned to a General Preset piston ([1]-[8]) for instant recall. There are two banks of these presets, selectable via the [MEMORY] button. One final registration can be assigned to the [CANCEL] button giving a total of 17 registrations.

When there is no disk in the drive, these seventeen registrations are all you have access to. They are stored in various 'files' in the internal, non-volatile memory, so that they will be available whenever the W-5000 is turned on. When you save a registration (by holding the [SET] button and pressing one of the numbered buttons or the [CANCEL] button), one of these files in the non-volatile memory is overwritten with new data.

If you insert a disk into the drive, the W-5000's storage space for registrations is vastly expanded. Each set of sixteen piston registrations (two banks of eight) constitutes a 'folder', which means that the internal, non-volatile memory consists of a single folder. A floppy disk, however, can contain eight such folders, for a total of 128 registrations.

SAVING A FOLDER

The easiest way to create a folder on a disk is to copy the entire folder from the internal, non-volatile memory. With a disk in the drive, simply hold both [SET] and [MEMORY], and press one of the numbered pistons ([1]-[8]). This causes all sixteen registrations assigned to the buttons to be written to the disk folder.

This process may take half a minute or so and the [SET] LED goes out when it is complete. Once you've done this, the folder you've stored becomes the 'current folder'. This means that whenever you store an individual piston registration (by holding [SET] and pressing a button ([1]-[8])) it is written to the folder on the floppy disk (not to internal memory). (This takes a few seconds, unlike writing to the internal folder which is nearly instantaneous.)

LOADING A FOLDER

Once you have a disk that contains one or more folders, you can load an entire folder in a single operation. Simply hold [MEMORY] and press one of the numbered pistons ([1]-[8]). This causes all sixteen registration files to be loaded from that disk folder and assigned to the General Preset buttons. It also makes the folder the 'current folder' for all subsequent [SET] operations. If you attempt this operation and the disk doesn't contain the specified folder (or there is no disk in the drive), the W-5000 will inform you.

ACCESSING THE INTERNAL FOLDER

The functions for loading and saving an entire folder also apply to the internal folder, using the [CANCEL] button instead of a numbered button. That is, you can store all your registrations in the internal folder (and select the internal folder) by holding [SET] and [MEMORY] and pressing [CANCEL]; and you can load all of your registrations from the internal folder by holding [MEMORY] and pressing [CANCEL].

AUTOMATIC FOLDER LOADING

The [PRESETS] menu contains an Auto Load function, mentioned earlier, which can be set to 'On' or 'Off'. When on, the W-5000 automatically tries to load folder number one whenever a disk is inserted into the drive. If the disk doesn't have folder number one, the internal folder remains active. Similarly, when the disk is removed from the drive, the internal folder is automtically selected.

When this function is off, inserting or removing a disk has no effect. Well, not quite. If you have a disk folder selected, and you remove the disk, the internal folder is 'selected' but not loaded. This means that subsequent [SET] operations will write to the internal folder, but removing the disk doesn't cause registrations to be loaded from the internal folder. Got it?

This function is particularly useful when you want to copy from one disk to another. With Auto Load turned off, you can insert one disk, load one folder (using [MEMORY] and [1]-[8]), swap in a different disk, and save that folder (using [SET] and [MEMORY] and [1]-[8]). If Auto Load is on, you wouldn't be able to do this because the W-5000 would automatically load the internal folder when you removed the disk from the drive and then load folder one from any new disk inserted into the drive.

SELECTING A FOLDER WITHOUT LOADING

If there is a disk in the drive you can also 'select' a folder without actually loading it. If you press the [MEMORY] button, the number of the currently selected folder is displayed ('Internal', or '1' through '8'). You can edit this setting like any other value using the [+] and [-] buttons. Doing so, however, will not cause your selection to be loaded. All this does is change the folder that will be accessed when you store an individual registration using the [SET] button. (It is also useful for selecting what folder will be deleted when the Delete Folder function is selected from the [PRESETS] menu.)

Note, however, that if you select a folder in this manner, you can no longer be sure that the registrations that are assigned to the General Preset buttons match what is in the currently selected folder. Sometimes this can be useful because it allows you to create a folder consisting of individual registrations collected from various other folders.

THE CANCEL AND GLOBAL FILES

A floppy disk can also store a copy of a CANCEL registration and a global file. (Even though there can be eight folders on a disk, there can only be one CANCEL registration and one global file.) This allows you to exchange these files with a different instrument, or simply maintain a backup file.

The CANCEL file works like this:

- When the instrument is turned on, the CANCEL file is loaded from internal memory into the [CANCEL] button, and that registration is selected.
- When you hold [SET] and press [CANCEL], the current registration is stored to the CANCEL file in the internal memory. It always goes to the internal memory, even if a disk folder is selected.
- When you execute the 'Save Cancel' function ([PRESETS] menu), the CANCEL file is copied from internal memory to the disk. It doesn't save the current registration, it just copies this file.
- When you execute the 'Load Cancel' function ([PRESETS] menu), the CANCEL file is copied from the disk to internal memory. It doesn't affect the current registration, it just copies the file.

The Global file works like this:

- Global settings are not part of any registration. When the instrument is turned on, the global 'file' is loaded from internal memory, and all the settings recorded in it are read.
- When you change a global setting, it is a temporary change and must be saved if you want to keep it.

- When you execute the 'Write Globals' function ([PRESETS] menu), the global settings are written to the global file in the internal, non-volatile memory. They will therefore be activated next time the instrument is turned on.
- When you execute the 'Save Globals' function ([PRESETS] menu), the global settings are written to the global file on disk. This saves the current settings, not a copy of the internal global file.
- When you execute the 'Read Globals' function ([PRESETS] menu), the global settings are read from the global file in the internal, non-volatile memory, just as though the instrument had just been turned on.
- When you execute the 'Load Globals' function ([PRESETS] menu), the global settings are read from the global file on disk. This only affects the current settings and not the global file in the internal memory.

CHAPTER 8

Audio

THE AUDIO SYSTEM

Although you've no doubt discovered that the W-5000's internal sound system is extremely capable, there may be situations in which you need greater volume or flexibility. You'll be pleased to know that the W-5000 is designed to accommodate!

NOTE: Before making any connections or disconnecting any cables, be sure all of the equipment in your audio system is off. This includes all mixers, amps, PA systems and the W-5000 itself. Taking this simple precaution will help prevent damage or malfunction.

Before you turn anything on, double check the connections and be sure all volume levels are set to zero. Once all the equipment is on, then set the volume controls to appropriate levels.

OUTPUTS

Audio output from the W-5000 is provided in a variety of forms. With the output array provided you'll be able to create the configuration you need. (Refer back to page 14 (Rear Panel Description) if you need to refresh your memory.)

MIXED LINE BALANCED OUTPUT

These XLR connectors provide a balanced output of all the W-5000's internal sources; SYNTH, DRAWBAR and CLASSIC ORGAN (this is called the Line mix). Any source connected to the AUX INPUTs can also be output through these connectors. The composite signal from these outputs can be sent directly to a mixing board (using long cables if necessary).

MIXED SPKR OUTPUT

These 1/4" jacks provide an output for the Speaker mix; the same signal heard through the instrument's internal speakers. Any source connected to the AUX INPUTs can also be output through these connectors. Send the output from these jacks to a mixer for house or stage monitor use.

MIXED LINE OUTPUT

These 1/4" jacks provide a line level output (Line mix) for the instrument's main sources (SYNTH, DRAWBAR and CLASSIC ORGAN). The output from these jacks can be sent to recording devices or outboard digital processors (for example). This is the same signal as provided by the MIXED LINE BALANCED OUTPUTs (but the signal is not balanced and these are 1/4" jacks, not XLRs).

RODGERS MAIN OUTPUT

This is the standard Rodgers 15-pin connector providing a composite of the main individual outputs (SYNTH, DRAWBAR and CLASSIC ORGAN) as well as the MIXED LINE or MIXED SPKR OUTPUTs. This connector can also send a 'power on' signal to any amplifiers in the chain.

RODGERS ANTIPHONAL OUTPUT

This is the standard 9-pin connector for the MIXED LINE OUTPUTs. This connector can also send a 'power on' signal to any amplifiers in the chain.

SYNTH OUTPUT

These 1/4" jacks allow you to send a line-level signal from the Synth generator to separate channels of a mixing board, a dedicated effects unit and/or to separate speaker enclosures. This gives you full control over the output of Synth sounds. For the best results, use both the Left and Right jacks.

DRAWBAR OUTPUTS

These 1/4" jacks allow you to send a line-level signal from the Drawbar/Tone-Wheel generator to separate channels of a mixing board, a dedicated effects unit and/or to separate speaker enclosures. This is the signal

containing the Drawbar sounds after they are routed through the [DRAWBAR DISTORT] and [ROTARY] effects. For the best results, use both the Left and Right jacks.

CLASSIC OUTPUT

These 1/4" jacks allow you to send a line-level signal from the Classic Organ generator to separate channels of a mixing board, a dedicated effects unit and/or to separate speaker enclosures. This gives you full control over the output of Classic Organ sounds. For the best results, use both the Left and Right jacks.

ROTARY TONE CABINET

Although the W-5000 provides a very realistic simulation of a rotary speaker system, there's nothing like the real thing! This multi-pin connector allows you to use a real rotary tone cabinet with your instrument. We recommend the following models:

- **Leslie 122** (requires an 11-pin to 6-pin adapter module; Leslie Kit 1122)
  This is the old unit that most people are likely to have. It supports only a single rotating channel.
- **Leslie 122XB**
  This is the newer version of the Leslie 122 and does not require the 11-pin to 6-pin adapter. It also supports only a single rotating channel.
- **Leslie 716/723**
  These models are similar the 122XB except that they support a stationary channel (called MAIN) as well as the rotating channel. In the W-5000, the drawbar signal can be sent to this MAIN stationary channel. This simulates the combination of the old Leslie 122 and the stationary organ tone cabinet sometimes used in church environments.
- **Leslie 750**
  This model is like the 723, but adds another pair of stationary channels called AUX 1 and AUX 2 (four channels in all). The W-5000 supports these AUX channels by allowing you to select whether the Speaker mix or the Line mix goes to these pins of the ROTARY TONE CABINET connector.

  NOTE: The Leslie 412 is NOT RECOMMENDED because it has only a single AUX channel.

The ROTARY TONE CABINET output signal (called 'XRot' in the Audio parameters) is the 'dry' Drawbar signal split off before it reaches the W-5000's internal Rotary simulator, but after the [DRAWBAR DISTORT] and [UPPER DB VIB]/[LOWER DB VIB] effects. Therefore, it is possible to have an external rotary tone cabinet and the W-5000's simulated rotary sound used simultaneously for that 'multiple rotary' sound.

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INPUTS

AUX INPUTS (XLR)

These XLR connectors allow you to connect a variety of external devices to your W-5000. These include other keyboard instruments, mixing consoles or microphones. The signals input to the W-5000 can be routed through the on-board reverb unit and then directed to one or more of the output connectors.

AUX INPUTS (1/4")

These extremely versatile 1/4" jacks accept connection of a wide variety of devices including external sound modules, electronic instruments or microphones. The signals input to the W-5000 can be routed through the on-board reverb unit and then directed to one or more of the output connectors.

SW1 (1/4")

This jack accepts connection of an external footswitch (usually a switched (on/off) controller).

PEDAL (1/4")

This jack accepts connection of an external footswitch (such as another Expression pedal).

ACC POWER (1/4")

This jack is a general purpose 12 volt output. External equipment (like a Rodgers PR-300) can be powered from this jack.

All of the parameters (including sensitivity adjustments, stereo pan locations, reverb/chorus levels, signal routing and so on) for the audio system (internal and external) are accessible through the [AUDIO] button in the FUNCTIONS section. Please refer to page 130 for a complete list of audio parameters. Please refer to 'Specifications' on page 161 for details regarding the W-5000's internal audio system. Finally, an Audio Block Diagram can be found on page 160.

SPEAKER AND LINE MIXES

THE SPEAKER MIX

The [SPKR] knob, as you will know, controls the overall volume of the instrument's internal speakers. The sound that comes from the internal speakers is a mix of various sources, primarily the Classic Organ, Tone-Wheel/Drawbar and Synth generators. If you like, you can adjust the relative levels of each of these internal sources using the corresponding parameters accessed by pressing the [AUDIO] button in the FUNCTIONS section:

Audio Syn
Spkr Mix: 0-127

This parameter allows you to determine the level of the Synth sounds in the overall Speaker mix. Press [NEXT] as necessary until this parameter appears in the LCD. Set the volume level with the [+]/[-] (or [++]/[--]) buttons.

Audio Org
Spkr Mix: 0-127
This parameter allows you to determine the level of the Classic Organ sounds in the overall Speaker mix. Press [NEXT] as necessary until this parameter appears in the LCD. Set the volume level with the [+]/[-] (or [++]/[--]) buttons.

Audio DBar
Spkr Mix: 0-127
This parameter allows you to determine the level of the Tone-Wheel/Drawbar sounds in the overall Speaker mix. Press [NEXT] as necessary until this parameter appears in the LCD. Set the volume level with the [+]/[-] (or [++]/[--]) buttons.

AUXILIARY INPUTS

However, if you've connected external devices to the W-5000 (through the AUX INPUTs (XLR or 1/4"), you can also hear these sources through the internal speakers. So, for example, if you want to connect two microphones to the 1/4" AUX INPUTs (one for each channel), you'll be able to hear the microphone signals through the W-5000's internal speakers.

To be able to do this however, you'll have to set a couple of parameters that will optimize the signals from the microphones. In our example, we'll also determine the pan (stereo location) of the sounds and add reverb. All of the parameters for the audio system (internal and external) are accessible by pressing the [AUDIO] button in the FUNCTIONS section. For the example of connecting two microphones, however, we'll show you which parameters you should set:

Audio Aux
Pad: L0-255 R0-255
This parameter allows you to adjust the input pad (a type of attenuation) for the microphones connected to the 1/4" AUX INPUT jacks. Press [NEXT]/[PREVIOUS] as necessary to select this parameter. Set the Left pad so the microphone input level is not too high or low. Use the [+]/[-] (or [++]/[--]) buttons. Press [NEXT] to select the Right pad. Make an appropriate setting for the right microphone. (A value of '0' mutes the input. A value of '192' is 'Unity' gain. Finally, a value of '255' is +31.5dB.)

Audio Aux
Gain: +0db, +6db, +12db, +18db
This parameter allows you to adjust the input sensitivity to match the output of the microphones. Press [NEXT]/[PREVIOUS] as necessary to select this parameter. Set the Gain using the [+]/[-] buttons. (This setting applies to both inputs.) This option has been optimized on the W5000C and is not configurable.

Audio Aux Left
Spkr: L0-127 R0-127
This parameter allows you to direct the microphone signal from the left AUX INPUT to the left or right speakers in the W-5000 (the pan location). Press [NEXT]/[PREVIOUS] as necessary to select this parameter. Set the amount of signal you want to go to the left using the [+]/[-] (or [++]/[--]) buttons. (Higher numbers move the signal farther to the left.) Press [NEXT] to move to the next field. Set the amount of signal you want to send to the right speakers. (Higher numbers move the signal farther to the right.)

Audio Aux Right
Spkr: L0-127 R0-127
This parameter allows you to direct the microphone signal from the right AUX INPUT to the left or right speakers in the W-5000 (the pan location). Press [NEXT]/[PREVIOUS] as necessary to select this parameter. Set the amount of signal you want to go to the left using the [+]/[-] (or [++]/[--]) buttons. (Higher numbers move the signal farther to the left.) Press [NEXT] to move to the next field. Set the amount of signal you want to send to the right speakers. (Higher numbers move the signal farther to the right.)

Audio Aux Left
RevSnd: 0-127
This parameter allows you to send the signal from the left AUX INPUT to the W-5000's internal reverb unit. Press [NEXT] as necessary to select this parameter. Set the reverb send level with the [+]/[-] (or [++]/[--]) buttons.

Audio Aux Right
RevSnd: 0-127
This parameter allows you to send the signal from the right AUX INPUT to the W-5000's internal reverb unit. Press [NEXT] as necessary to select this parameter. Set the reverb send level with the [+]/[-] (or [++]/[--]) buttons.

Audio Rev Return
Spkr Mix: 0-127
This parameter determines the level of processed signal added to the Speaker mix. Press [NEXT] as necessary to select this parameter. Set the reverb return level to the Speaker mix with the [+]/[-] (or [++]/[--]) buttons. (Higher numbers mean a greater level of processed sound; the sound with added reverb.)

THE LINE MIX

In addition to the Speaker mix, the W-5000 also provides a Line mix; a mix of sounds (which can be completely different from the Speaker mix) that you can send to external mixing boards, digital processors or recording equipment via the MIXED LINE BALANCED OUPUTs (XLR) or MIXED LINE OUTPUTs (1/4"). The overall level of the Line mix is controlled by the [LINE] knob.

As with the Speaker mix, you can set the relative levels of the primary internal tone generators for the Line mix. Press [AUDIO] in the FUNCTIONS section to access these parameters:

Audio Syn
Line Mix: 0-127
This parameter allows you to determine the level of the Synth sounds in the overall Line mix. Press [NEXT] as necessary until this parameter appears in the LCD. Set the volume level with the [+]/[-] (or [++]/[--]) buttons.

Audio Org
Line Mix: 0-127
This parameter allows you to determine the level of the Classic Organ sounds in the overall Line mix. Press [NEXT] as necessary until this parameter appears in the LCD. Set the volume level with the [+]/[-] (or [++]/[--]) buttons.

Audio DBar
Line Mix: 0-127
This parameter allows you to determine the level of the Tone-Wheel/Drawbar sounds in the overall Line mix. Press [NEXT] as necessary until this parameter appears in the LCD. Set the volume level with the [+]/[-] (or [++]/[--]) buttons.

AUXILIARY INPUTS

Any source that you connect to the AUX INPUTs can also be sent to the Line mix if you so wish. If we continue to use our example of the two microphones, there are a number of parameters that you can set for the Line mix. The following parameters (which represent but a few of the total number) are again accessible by pressing the [AUDIO] button in the FUNCTIONS section:

Audio Aux Left
Line: L0-127 R0-127

This parameter allows you to place the microphone signal from the left AUX INPUT anywhere in the stereo spectrum (L/R) of the Line mix (the pan location). Press [NEXT]/[PREVIOUS] as necessary to select this parameter. Set the amount of signal you want to go to the left using the [+]/[-] (or [++]/[--]) buttons. (Higher numbers move the signal farther to the left.) Press [NEXT] to move to the next field. Set the amount of signal you want to send to the right speakers. (Higher numbers move the signal farther to the right.)

Audio Aux Right
Line: L0-127 R0-127

This parameter allows you to place the microphone signal from the right AUX INPUT anywhere in the stereo spectrum (L/R) of the Line mix (the pan location). Press [NEXT]/[PREVIOUS] as necessary to select this parameter. Set the amount of signal you want to go to the left using the [+]/[-] (or [++]/[--]) buttons. (Higher numbers move the signal farther to the left.) Press [NEXT] to move to the next field. Set the amount of signal you want to send to the right speakers. (Higher numbers move the signal farther to the right.)

Audio Aux Left
RevSnd: 0-127

This parameter allows you to send the signal from the left AUX INPUT to the W-5000's internal reverb unit. Press [NEXT] as necessary to select this parameter. Set the reverb send level with the [+]/[-] (or [++]/[--]) buttons.

Audio Aux Right
RevSnd: 0-127

This parameter allows you to send the signal from the right AUX INPUT to the W-5000's internal reverb unit. Press [NEXT] as necessary to select this parameter. Set the reverb send level with the [+]/[-] (or [++]/[--]) buttons.

Audio Rev Return
Line Mix: 0-127

This parameter determines the level of processed signal added to the Line mix. Press [NEXT] as necessary to select this parameter. Set the reverb return level to the Line mix with the [+]/[-] (or [++]/[--]) buttons. (Higher numbers mean a greater level of processed sound; the sound with added reverb.)

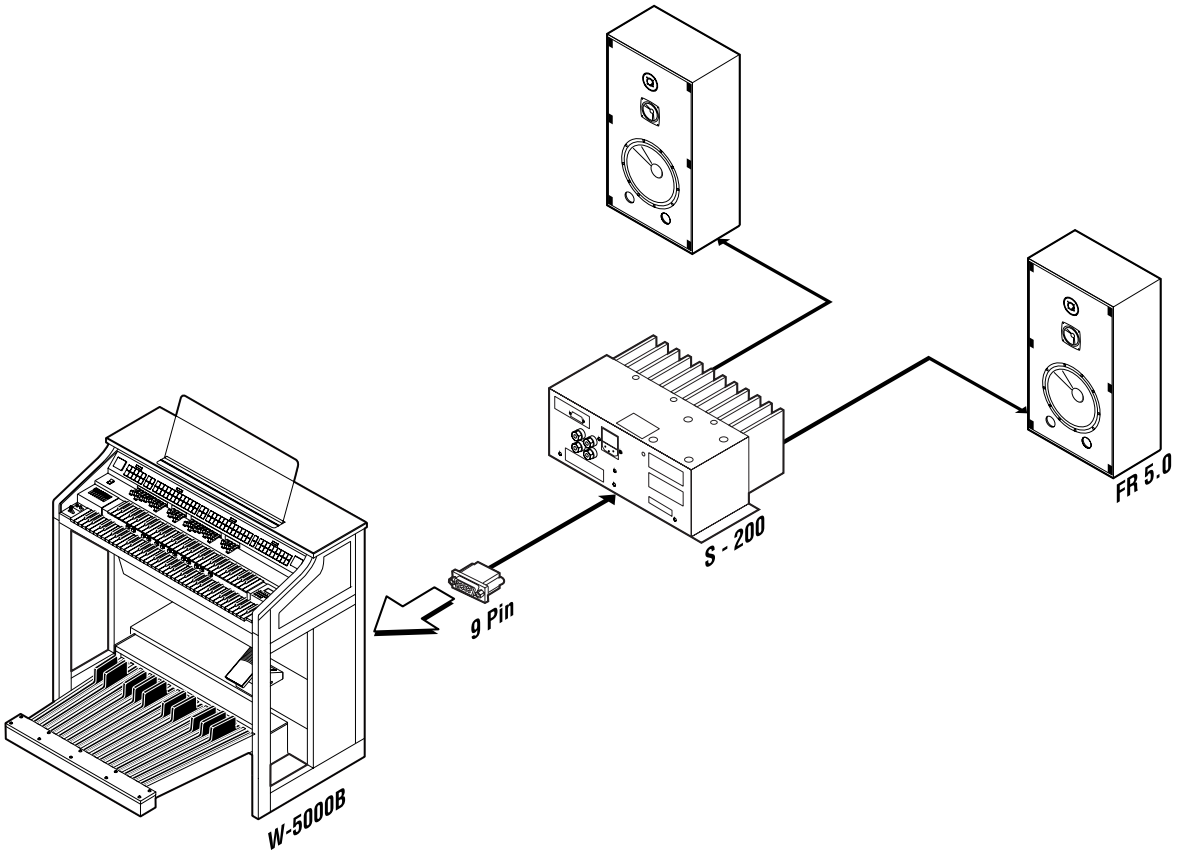
For a complete list of all the audio parameters and their functions, please refer to page 127.

AUDIO SYSTEM CONFIGURATIONS

The following few pages present some recommended audio system setups using the W-5000 and a variety of external Rodgers devices. Three setups are illustrated, each targeted at spaces of differing sizes (small, medium and large). Keep in mind that these are suggestions only. To create a system which is custom-tailored to your particular needs, please consult your Rodgers dealer.

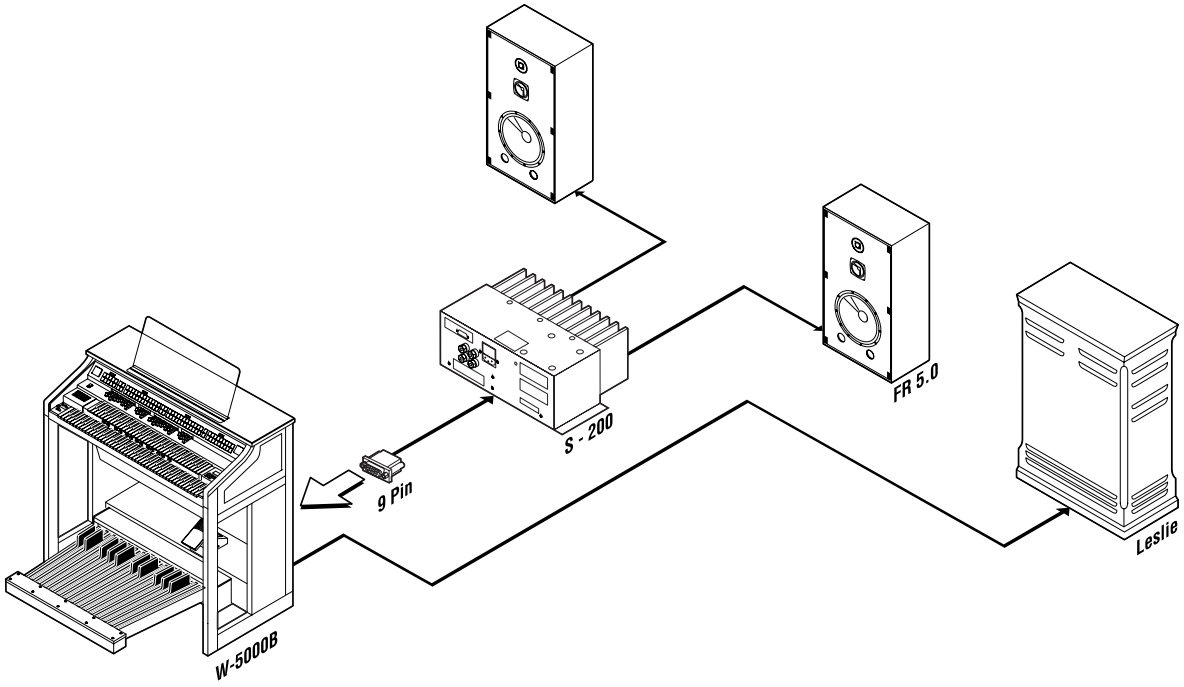
BASIC AUDIO SETUP

The setup illustrated below is suited to smaller environments (a small church or a home perhaps). A Rodgers S-200 amplifier driving a pair of Rodgers FR 5.0s (Full Range speaker systems; for the Line mix) will create a pleasing sound in a smaller setting:



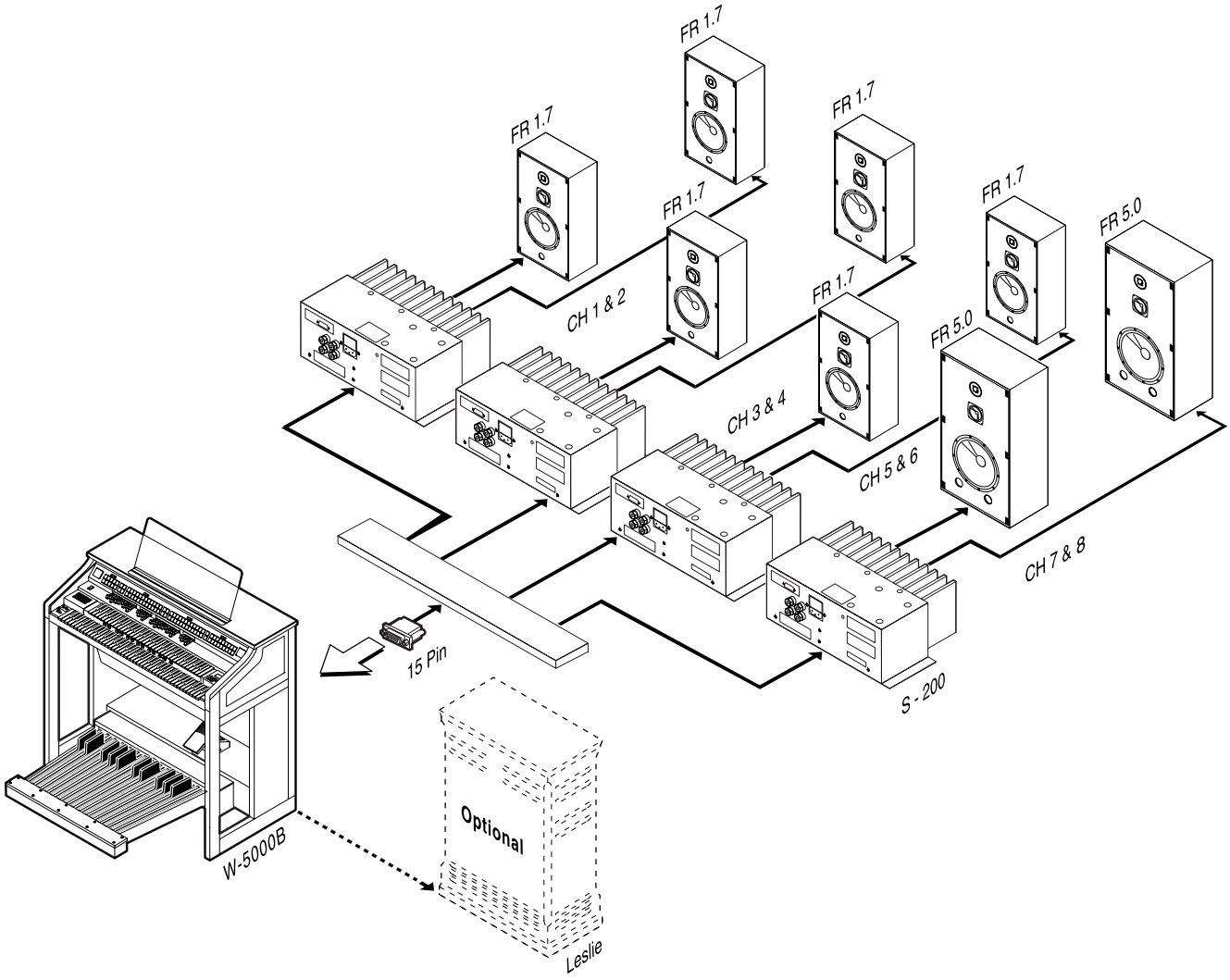
MID-SIZED AUDIO SETUP

For situations which require greater volume, adding a Leslie cabinet to the basic setup will not only give you that increased volume, but it will also give you that unique sound quality of a real rotary speaker; Drawbar sounds can be taken from the Spkr or Line mix, or the real rotary sounds from the Leslie can be 'paralleled' with the W-5000's simulated rotary sounds:



LARGE AUDIO SETUP

If you're using the W-5000 in situations where high volume levels (and wide sound dispersion) are required, the setup illustrated below is an option to consider. Three pairs of FR 1.7s (one for each of the individual outputs; DRAWBAR, CLASSIC and SYNTH) and a pair of FR 5.0s (for the LINE mix) all driven by four S-200 amplifiers should provide all the power you need. (An Audio Cable Interface (Rodgers part number 5298-300) will be necessary to distribute signals.) A Leslie cabinet added to the setup gives you additional sonic flexibility. (If a Leslie is used in this setup, it is possible to move the Drawbar output RF 1.7s (Channels 3 & 4) and double them up with the FR 5.0s to increase the Line Mix volume. In this case, the S-200 amp for channels 7 & 8 will support the 4-ohm load and you will not need an S-200 for channels 3 & 4.):



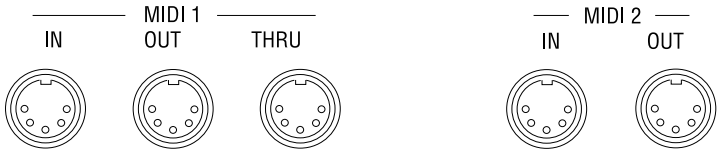
CHAPTER 9

Using MIDI

USING MIDI

MIDI stands for 'Musical Instrument Digital Interface' - an industry-wide standard that allows electronic musical instruments and computers to exchange musical and system data. Most electronic instruments sold these days are MIDI compatible.

MIDI devices have unique, multi-pin connectors which are used to physically link one device to another via special MIDI cables. The W-5000 has two sets of MIDI connectors; MIDI Port 1 and 2:

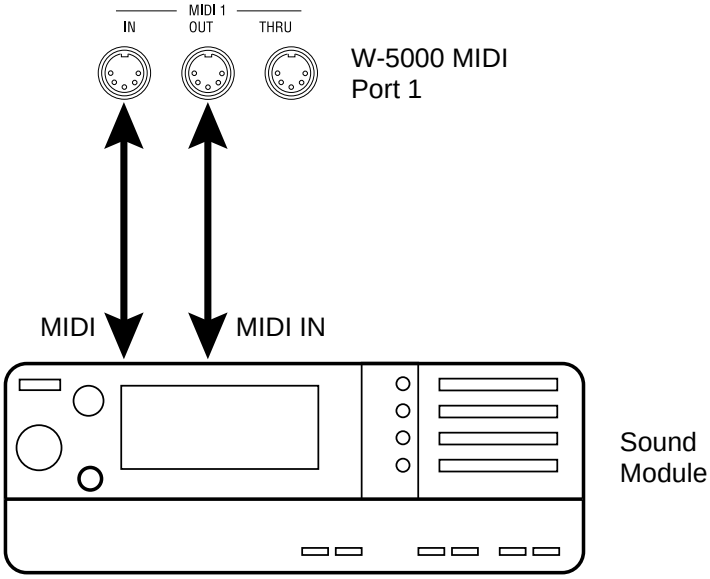


MIDI does not transmit the sound of an instrument, but rather digital messages which instruct the receiving device to do something (e.g. change to a different sound, raise the volume, turn the reverb off and so on). MIDI is the most significant advancement in the music industry in the last 15 years and has revolutionized the way music is made!

USING EXTERNAL SOUND MODULES

As the W-5000 features two MIDI ports, you can connect one or two external sound modules to the instrument and then use them to produce additional sounds. For our example, however, we'll assume that only one module is being used (and that it is connected to MIDI port 1).

Connect the MIDI OUT of port 1 to the MIDI IN port of the sound module. Then connect the MIDI OUT port of the sound module to the MIDI IN on the W-5000:



Note: If you connect the external sound module after powering up the W-5000, you should use the [MIDI] Initialize parameter to initialize the sound module. (See page 133.)

For this example, we'll use the Upper manual to trigger sounds in the module. Sounds from the module will then be sent to the W-5000 where they will be played through the internal speakers. Refer to your sound module's manual for information on using it in this type of setup.

The [MIDI] buttons in each of the three sections (UPPER, LOWER and BASS) control whether or not note data is sent to the external module (they function as ON/OFF switches). Controller data (volume, pitch bend/modulation, expression etc.), however, is always sent to the MIDI OUT ports regardless of the settings of the [MIDI] buttons. The [MIDI] buttons represent 'layers' in the W-5000 and can be affected by the [VOICING] button, as well as controllers assigned to them under the [CONTROLS] button. However, some of these advanced capabilities require a GS Format sound module.

Press the [MIDI] button in the UPPER section. Set the parameters as indicated below:

Upper MIDI
Port: 1, 2
This parameter determines from which port on the W-5000 (1 or 2) the MIDI data is sent. Select port '1' with the [+] and [-] buttons.

Upper MIDI
Channel: 1-16
This parameter determines on which channel (1-16) the data will be sent. Press [NEXT] to select this parameter. Use the [+] and [-] buttons to select channel '1'.

Upper MIDI
Prg: 0-128 Bnk: 0-127
This parameter determines which Program Change Number (1-128) and Bank (Variation) Number (MSB; 0-127) is sent when the UPPER [MIDI] button is pressed. Press the [NEXT] button to select the 'Prg' field. Select the desired 'Prg' Number with the [+]/[-] (or [++]/[--]) buttons. Press [NEXT] to select the 'Bnk' field. Select the desired 'Bnk' Number with the [+]/[-] (or [++]/[--]) buttons. (Select Prg '0' or Bnk '0' if you do not want Program and/or Bank select messages sent to the MIDI port.)

Upper MIDI
Bank LSB: 0-127
This parameter selects the Bank LSB (Least Significant Bit) Number. Press the [NEXT] button to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons.

Upper MIDI
Transpose: -127-127
This parameter allows you to transpose the pitch of outgoing note data (-127-127). Press the [NEXT] button to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons to set the transposition. (If you do not wish to transpose note data, set this parameter to '0'.)

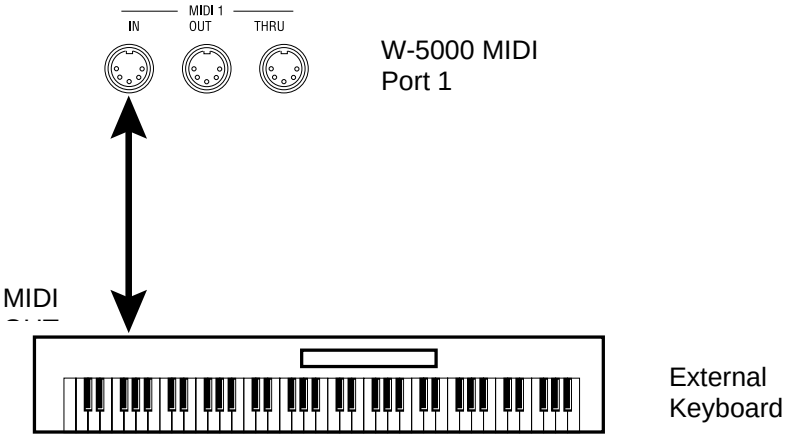
Upper MIDI
Volume: 0-127
This parameter allows you to set the volume of note data sent to the sound module. Press the [NEXT] button to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons. (Set the volume to maximum, that is, to '127'.)

These parameters, along with the setting of each [MIDI] button (on/off), can be stored in the General Presets. In addition, changing these parameters will result in the data being sent to MIDI port 1 allowing you to hear the changes as you make them.

MIDI Layer
Exp CC#: 7, 11
This parameter determines which Control Change command is executed when the Expression pedal is moved: 7 or 11. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select ‘7’.

USING THE W-5000 AS A SOUND MODULE

While it may not seem to be practical (given the instrument's size and weight), it is possible to use the W-5000 as a sound module for other devices! To setup for this type of arrangement, connect the MIDI OUT port on the external sequencer or keyboard to either of the W-5000's MIDI IN ports. For our example we'll use the MIDI IN connector of port 1:



The [MIDI] button in the FUNCTIONS section provides access to the many parameters you'll need for this type of configuration. Note that not all of these parameters are listed here; see page 115 for a complete description of these MIDI parameters. (MIDI Master parameters are listed on page 133.)

Press the [MIDI] button in the FUNCTIONS section. Set the following parameters:

MIDI Mst In
Port: 1, 2

This parameter determines which MIDI port (1 or 2) is used as the Master (Mst) MIDI input. Data arriving at the selected port will be played as if the instrument itself were being played. Press [NEXT] to select this parameter. Use the [+] and [-] buttons to select MIDI port '1'.

MIDI Mst In Chn
U:1-16 L:1-16 P:1-16

These three parameters determine which MIDI channel (1-16) will be used as the Master MIDI Input. Data arriving on the selected channel will be played as if the instrument itself were being played. Press [NEXT] to select this parameter (and to move to the next field). Use the [+] and [-] buttons to select channel '1' for each section (Upper, Lower, Pedal).

MIDI Mst In Filt
U: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter determines what type of data will be filtered out of the incoming data via the Master MIDI Input for the Upper section. The following options can be selected:

- NONE : No filtering is done
- PC : Program Changes (preset selections) are filtered
- CC : Control Changes (such as UPPER Drawbars and UPPER BALANCE sliders) are filtered
- CC+PC : Control Changes and Program Changes are filtered
- NOTE : Note data is filtered
- PC+Not : Program Changes and Note data are filtered
- CC+Not : Control Changes and Note data are filtered
- All : All data is filtered

Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select 'CC+PC'.

MIDI Mst In Filt
L: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter determines what type of data will be filtered out of the incoming data via the Master MIDI Input for the Lower section. The options outlined above apply. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select 'CC+PC'.

MIDI Mst In Filt
P: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter determines what type of data will be filtered out of the incoming data via the Master MIDI Input for the Pedal (Bass) section (Pedalboard or Keybass). The options outlined above apply. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select 'CC+PC'.

MIDI Mst In
Exp CC#: 7, 11

This parameter determines which Control Change command is executed when the Expression pedal is moved: 7 or 11. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select '7'.

These parameters are stored in the Global Parameter's memory if you press the [SET] and [ROTARY] buttons simultaneously. In addition, changing parameters may result in data being output to the MIDI port(s), so you will be able to hear the results immediately.

Program Changes coming in on the Master MIDI Input are interpreted (if not filtered out) as General Preset selections. Since the General Presets are 'general', it doesn't matter which section is receiving the Program Changes. However, they are always transmitted (and, therefore, recorded) on the Lower MIDI Master Channel. The Program Numbers representing specific presets are as outlined below:

Program #	Action
1	Selects General Preset [1]
2	Selects General Preset [2]
3	Selects General Preset [3]
4	Selects General Preset [4]
5	Selects General Preset [5]
6	Selects General Preset [6]
7	Selects General Preset [7]
8	Selects General Preset [8]
20	Selects Cancel
31	Selects Memory 1
32	Selects Memory 2

EXTERNAL SEQUENCING

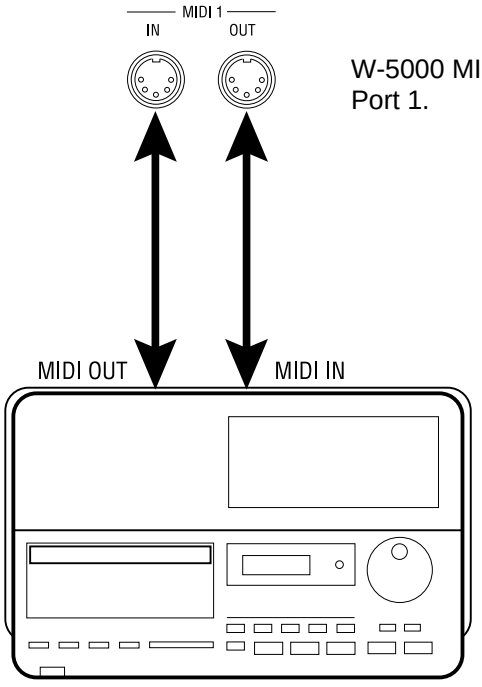
As the W-5000's sequencer is only capable of 'single-pass recording', you'll need to use an external sequencer if you want to do any multi-track recording. The Rodgers PR-300S is a very good example of such a unit! The following explanation therefore assumes that you're using a PR-300S (or similar unit). (Refer to your sequencer's manual for information on multi-track recording.)

W-5000 sequencing can be done using the same 'master' MIDI inputs and outputs described in the preceding section. However, when playing back such a sequence, it plays on the same section of the instrument that the keyboards play on (rather like a player piano). This kind of sequencing only allows for three 'tracks', one for each keyboard, and is therefore of limited usefulness. What's more, since the 'master' channel interface only records note messages, raw controller data and General Preset selection, the instrument must have access to the same folder of presets for recording and playback.

Native Mode sequencing (internal or external) transcends these limitations. First, it plays back on a completely independent section of the instrument (except for a few common global controls), so it doesn't interfere with your ability to play along with the sequence. Second, it records the individual parameters of the sound, not General Preset selection, so it doesn't matter what presets are available when you play back the sequence.

MASTER CHANNEL SEQUENCING

To do Master Channel sequencing, first connect the MIDI IN port of the sequencer to one of the MIDI OUT ports on the W-5000 (we suggest using MIDI port 1 for this mode). Then, connect the MIDI OUT port of the sequencer to the corresponding MIDI IN port on the W-5000.



W-5000 MIDI Port 1.

PR-300S Sequencer/Sound Module or similar unit.

The [MIDI] button in the FUNCTIONS section will provide access to the many parameters you'll need to set for recording. Note that not all of these parameters are listed here; see page 115 for a complete description of the MIDI parameters. (MIDI Master parameters are listed on page 133.)

First, however, quickly review the parameters described in 'Using The W-5000 As A Sound Module' (page 94). Some of those same parameters will be useful to you. To get you started, here a few parameters you'll need to set:

MIDI Mst Out
Port: 1, 2

This parameter determines which port (1 or 2) is used as the Master MIDI Output. Data played on the instrument is sent from the selected port. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to choose port '1'.

MIDI Mst Out Chn
U: 1-16 L:1-16 P: 1-16

These three parameters determine which MIDI channel (1-16) will be used for the Master MIDI Output. Data played on the instrument is transmitted on the selected channel. Press [NEXT] to select this parameter (and to move from field to field) . Use the [+]/[-] buttons to set the channels.

MIDI Mst Out Flt
U: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter determines what type of data is filtered out of the data sent to the Master MIDI Output from the Upper keyboard. The following options are available:

- NONE : No filtering is done
- PC : Program Changes (preset selections) are filtered
- CC : Control Changes (such as UPPER Drawbars and UPPER BALANCE sliders) are filtered
- CC+PC : Control Changes and Program Changes are filtered
- NOTE : Note data is filtered
- PC+Note : Program Changes and Note data are filtered
- CC+Note : Control Changes and Note data are filtered
- All : All data is filtered

Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select 'CC+PC'.

MIDI Mst Out Flt
L: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter determines what type of data is filtered out of the data sent to the Master MIDI Output from the Lower keyboard. The available options are the same as those listed above. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select 'CC+PC'. (Preset selections and generally assignable controllers are transmitted on the Lower MIDI Master Channel. Therefore, it is this filter that you will most likely change, even if you are not playing on the Lower manual.)

MIDI Mst Out Flt
P: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter determines what type of data is filtered out of the data sent to the Master MIDI Output from the Pedalboard or keybass. The available options are the same as those listed above. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select 'CC+PC'.

MIDI Mst Out
Exp CC#: 7, 11

This parameter determines which Control Change command is sent when the Expression pedal is moved: 7 or 11. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select '7'.

MIDI Start
Stat Send: Both, CC, PC, None

This parameter determines what type of information is sent when the W-5000 receives a MIDI Song Start or Song Continue message: Both, CC, PC, None. If set to 'None', nothing is sent when these MIDI timing

commands are received. If set to 'PC', only the General Preset selection is sent. If set to 'CC', only the position of the controllers is sent. If set to 'Both', both the General Preset selection and the controller positions are sent. This way, the start of the song on playback will always set the instrument up the way it was when the song was recorded.

MIDI Local Cntl Upper: On, Off

MIDI Local Cntl Lower: On, Off

MIDI Local Cntl Pedal: On, Off

These three parameters determine the local control setting for each section. (Local control determines whether an instrument's internal sound source is connected to its keyboard.) If 'On', then playing the keyboard or controller will trigger the W-5000, as well as result in data being sent to the Master MIDI Output. If 'Off', then playing the keyboard or controller will result in data only being sent to the Master MIDI Output.

You'll need to set all of these parameters to be able to do any multi-track (multi-pass) recording on an external sequencer. Generally, the setting of these parameters depends upon the order in which you want to accomplish your goal (i.e. the order of recording passes). In addition, the first pass is significantly different from subsequent passes. Finally, the type of sequencer and its features also determine which parameters you need and their probable values.

As you can see, it's difficult to be specific when there are so many variables to consider! However, assuming that you want to record the notes and controller data for the Pedal (Bass), Lower, and Upper sections, in that order, followed by a pass for sound registration on a PR-300S, we can give you the following step-by-step directions. The following example assumes that you have connected the PR-300S MIDI IN and OUT to the W-5000's MIDI Port 1.

MASTER CHANNEL RECORDING WITH AN EXTERNAL SEQUENCER

- Select a New Song on the PR-300S. Be sure the PR-300S MIDI Clock Out is 'ON', MIDI IN Chn 1-10 is set to 'INT', and the switch on the back of the PR-300S is set to 'EXT'.
- Select an appropriate bass Tone on the W-5000. Be sure that all the controllers you want assigned to the Pedal (Bass) section are so assigned (you can use a General Preset to do this), so that you can hear the result by moving the controllers.

Ì Set (or verify) the following parameters on the W-5000:

MIDI Mst In Port	2
MIDI Mst In Chn	U:13 L:12 P:14
MIDI Mst In Filt	U:None
MIDI Mst In Filt	L:None
MIDI Mst In Filt	P:None
MIDI Mst In Exp	CC#: 7
MIDI Mst Out Port	2
MIDI Mst Out Chn	U:13 L:12 P:14
MIDI Mst Out Filt	U:All
MIDI Mst Out Filt	L:All
MIDI Mst Out Filt	P:PC
MIDI Mst Out Exp	CC#: 7
MIDI Start Stat Send	CC
MIDI Local Cntl Upper	Off
MIDI Local Cntl Lower	Off
MIDI Local Cntl Pedal	On

You can use the BASS [MIDI] button to control sound coming from the PR-300S. Just be sure that its Port is set to '1' and its Chn is '1-10'.

Í Record the first pass by pressing [RECORD] on the PR-300S and playing your bass lines on the W-5000. You can select General Presets or other bass sounds during the pass, but remember that they will not be recorded. Only notes played on the pedals or keyboard bass (and controller movements) will be recorded. Also, if you play on the other two keyboards, you will hear no sound because their local control parameters are turned off. If the General Presets selected during recording contain different controller assignments, you may not hear controller movements although they are being recorded. Press [STOP] on the PR-300S when recording is complete.

Î Select a sound for the Lower manual. Make sure that all the controllers you want assigned to the Lower manual are so assigned (you can use a General Preset to do this).

Ï Change the following parameters on the W-5000:

MIDI Local Cntl Lower	On
MIDI Local Cntl Pedal	Off
MIDI Mst Out Filt	L:PC
MIDI Mst Out Filt	P:All

You can use the LOWER [MIDI] button to control sound coming from the PR-300S. Just be sure that its Port is set to '1' and its Chn is '1-10'.

Ð Record the second pass by pressing [RECORD] on the PR-300S and playing your Lower manual parts. You can select General Presets or other Lower manual sounds during the pass, but remember that they will not be recorded. Only notes and controllers assigned to the Lower manual will be recorded. Also, if you play on the pedals or the Upper manual, you will hear no sound because their local control parameters are turned off. If the General Presets selected during recording contain different controller assignments, you may not hear controller movements although they are being recorded. Press [STOP] on the PR-300S when recording is complete.

Ñ Select an appropriate Upper manual sound on the W-5000. Be sure that all the controllers you want assigned to the Upper manual are so assigned (you can use a General Preset to do this).

Ò Change the following parameters on the W-5000:

MIDI Local Cntl Lower	Off
MIDI Local Cntl Upper	On
MIDI Mst Out Filt	U:PC
MIDI Mst Out Filt	L:All

You can use the UPPER [MIDI] button to control sound coming from the PR-300S. Just be sure that its Port is set to '1' and its Channel is '1-10'.

Ó Record the third pass by pressing [RECORD] on the PR-300S and playing your Upper manual parts. You can select General Presets or other Upper manual sounds during the pass, but remember that they will not be recorded. Only notes and controllers assigned to the Upper manual will be recorded. Also, if you play on the pedals or the Lower manual, you will hear no sound because their local control parameters are turned off. If the General Presets selected during recording contain different controller assignments, you may not hear controller movements although they are being recorded. Press [STOP] on the PR-300S when recording is complete.

ÊÊ Setup a set of General Presets that contain the sound changes (including sectional [MIDI] buttons) that you want throughout the song. Also, all controller assignments made during the above passes should be included in the General Presets, although you can do this later prior to playback if you wish.

ÊË Change the following parameters on the W-5000:

MIDI Mst Out Filt	L: NOTE+CC
MIDI Start Stat Send	PC

ÊÌ Record the final pass by pressing [RECORD] on the PR-300S and pressing the General Presets on the W-5000 at the appropriate time. Only Program Changes responding to the General Presets will be recorded. Also, if you play on the pedals or the Lower manual, you won't hear any sound because their local control parameters are turned off. If you play on the Upper manual, you will hear notes if a Tone is selected, but these will not be recorded.

NATIVE MODE SEQUENCING

More powerful sequencing is available using the Native Mode interface. This function gives each layer of sound a separate MIDI channel, as shown in the following table:

ch	layer	ch	layer
1	upper solo	9	lower drawbar
2	upper tone 1	10	drum
3	upper tone 2	11	lower external MIDI
4	upper drawbar	12	global
5	upper external MIDI	13	bass tone 1
6	lower solo	14	bass tone 2
7	lower tone 1	15	bass drawbar
8	lower tone 2	16	bass external MIDI

(The drum layer records anything that is played using the [MANUAL DRUMS] button, and the global layer records all controls that are common to all layers.)

Native Mode mimics the way the internal sequencer functions. Be aware, however, that the data rate when using sixteen MIDI channels can be quite high - especially if you've used the [CONTROLS] menu to map things like the expression pedal to more than one control destination. Some sequencers (or sequencing programs running on slow computers) may have problems keeping up with the data rate. If this happens, all

you can do is to try to record on fewer layers at any one time, or use simpler sounds with fewer control mappings.

Since all MIDI channels are used for Native Mode sequencing, it's essential that it use the MIDI port that isn't used for Master Channel input or output, or for the external MIDI layers. We suggest using MIDI port 1 for these purposes and reserving MIDI port 2 for Native Mode sequencing. Follow this setup procedure:

Ê If you're using an external MIDI sound module, make sure it's connected to port 1, and that all your presets that refer to it are set up accordingly.

Ë Connect port 2's MIDI output to the input of the sequencer, and the output of the sequencer back to port 2's input.

Ì Make sure the disk drive doesn't contain a disk with any sequences on it. If it does, it will be cued up to play one of the sequences, and the Native Mode input (which shares the same set of sound generation resources) won't work.

Í Press [MIDI] in the FUNCTIONS section.

Î Select “Native Language” = CC for multi-track recording. Either CC or NRPN is fine for 1 pass or single track recording.

Ï Select the Mst Out Port parameter, and make sure it's set to 1; do the same for the Drum Out Port parameter, if you're using manual drums.

Ð Select the Native Out Port parameter, and set it to 2.

Ñ Select the MIDI Output Initialize parameter, but don't invoke it yet. (This is the last parameter in the [MIDI] menu, so can be quickly reached by pressing [MIDI] again to get to the first parameter, and then pressing [PREV] to go backward one parameter.

Ò Select the General Preset you want to start the recording with.

At this point, you're ready to begin recording. How you initiate recording depends upon your sequencer, but once you've started recording, you'll need to do one more step before you begin to play:

Ó Press [+] to invoke the MIDI Output Initialize function. This causes the current state of all controls to be transmitted on all MIDI channels. If you fail to do this, when you play the sequence back, it will be playing on whatever random sounds were left over from the last sequence.

When you're done recording, stop the recorder and play back the sequence to verify that it recorded properly.

MULTI-TRACK RECORDING

The W-5000's Native Mode interface only sends data on those channels that correspond to layers that are currently on. This means that if you record a sequence using only Tone 1 (for example) in the upper keyboard, MIDI channels 1, 3, 4 and 5 will be silent. You can therefore do a certain amount of multi-track recording, as long as in each track you use a different set of layers. (If you record with the same layer more than once, and play the combination back, the two tracks will conflict with one another producing unexpected results.)

There is, however, one other thing to watch out for when multi-track recording, and that is that the global layer (MIDI channel 12) is always on. This can cause problems with some sequencers, because the MIDI Output Initialize function will transmit global parameters at the start of each track, which may become distorted if they become part of the actual sequence. (The PR-300S doesn't suffer from this problem because you're required to specify different MIDI channels for each track.) The best solution to this problem is to use your sequencer's controls to disable MIDI channel 12 on all but one track. This means, however, that this particular track must contain all the necessary global controls, including such things as Rotary and Fast/Slow changes.

You might want to redirect certain channels so that something recorded on one channel is sent to another during playback. You can achieve this with some limitations:

- Channels 1, 2, 3, 6, 7, 8, 13 and 14 may only be used for Synthesizer and Classic Organ sounds.
- Channels 4, 9 and 15 may only be used for Drawbar sounds.
- Channels 5, 11 and 16 may only be used for external MIDI sound module control.
- Channel 10 may only be used for drums.
- Channel 12 is reserved for global controls.

This means that you can redirect data only among the channels in the first three groups.

The Native Mode sequencing parameters are:

MIDI Output
Initialize (+)
This parameter refreshes all MIDI outputs by retransmitting program changes, notes that are on, and controls whose values are non-zero. It also refreshes the Native Mode outputs, the Master Channel outputs and the external MIDI layers.

MIDI Native In
Port: Off, 1, 2
This parameter determines which port, if any, the playback sound generation modules are connected to. We suggest using port 2, in which case you must be sure that the Master Channel interface, and all external MIDI layers, use port 1. Also, be aware that if there is a disk in the drive containing one or more sequences, the playback sound generators will be disconnected from the Native In port and connected to the internal sequencer, regardless of the setting of this parameter.

MIDI Native Out
Port: Off, 1, 2
This parameter determines which port, if any, is used to record Native Mode sequences. We suggest using port 2, in which case you must be sure that the Master Channel interface and all external MIDI layers use port 1.

MIDI Native Out
Language: NRPN, CC
W5000 specific controls will be sent to the external sequencer as either Non Registered Parameter Numbers (NRPNs) or Control Changes (CC). NRPN messages may overflow some sequencers, therefore it is best to use the native CC language to reduce MIDI bandwidth.

SYNCHRONIZING

The W-5000 also includes the ability to synchronize its internal metronome (which regulates the speed of the internal sequencer) to an external device. The [MIDI] menu contains two parameters to control this:

MIDI Sync In
Port: Off, 1, 2, Both
This parameter tells the W-5000 which port (or ports) to monitor for incoming MIDI Clock, Start, Continue and Stop messages. If Clocks are received, the internal metronome will track the tempo, which will show up in the Tempo parameter of the [SEQ] menu; if Clock messages stop, the internal metronome continues to run at its set tempo. Start, Continue, and Stop messages affect the internal sequencer if a song is selected; be

aware, however, that Start and Continue messages are treated in the same way, and that a Stop message activates the pause function. Two Stop messages in a row, however, reset the sequence to the beginning.

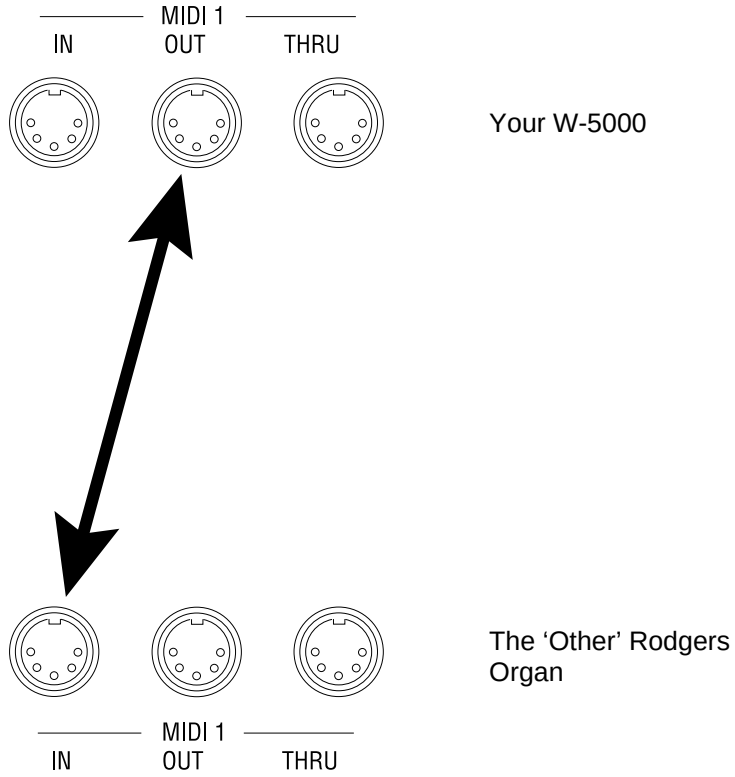
MIDI Sync Out
Port: Off, 1, 2, Both

This parameter tells the W-5000 from which port (or ports) to transmit MIDI Clock, Start, Continue and Stop messages. Clock messages are transmitted even while the internal sequence isn't playing so that an external sequencer can monitor the tempo. Start messages are transmitted at the beginning of a sequence, or whenever playback is paused and a Continue message is then transmitted.

CONTROLLING ANOTHER RODGERS ORGAN

The W-5000 (from either of its MIDI OUT ports) can control another Rodgers organ. However, it cannot select individual Tones; it can only select General Presets on the other instrument.

For this example, connect the MIDI IN of the other Rodgers organ to the MIDI OUT 1 port of the W-5000:



Be sure the following parameters are set in your W-5000 (access them by pressing the [MIDI] button in the FUNCTIONS section). Refer to the previous sections for a brief description of these parameters:

MIDI Mst Out Port	1
MIDI Mst Out Chn	U:13 L:12 P:14
MIDI Mst Out Filt	U: NONE
MIDI Mst Out Filt	L: NONE
MIDI Mst Out Filt	P: NONE
MIDI Mst Out Exp	CC#: 7

If you also want to hear the W-5000 while you're playing, be sure that the three local control parameters are set to 'On'. If you do not want to send W-5000 General Preset selections to the other Rodgers organ, set the three Mst Out Filt parameters to 'PC'.

For a complete list of MIDI parameters please refer to page 113. (MIDI Master parameters are listed on page 133.)

CHAPTER 10

Appendix

PARAMETER LISTS

The following section contains a list of all the W-5000's parameters. These parameters allow you to configure your instrument in precisely the manner you wish, as they cover everything from chorus and reverb settings, to MIDI settings, to panel light adjustments.

Each sub-section contains the parameters found under the corresponding panel button. Buttons are grouped as they appear on the panel. So, for example, all the parameters related to reverb are listed under '[GENERAL REVERB] Parameters' in the EFFECTS section. Each parameter is presented as it appears in the LCD and the available setting range or options are listed immediately afterward. A brief explanation of the parameter's function follows.

As mentioned at the beginning of this manual, the buttons in the EDIT section are used to select the various parameters and then navigate through the setting range or available options for that parameter. Generally, whenever a panel button is pressed, the LCD instantly displays information in regard to the selected item. Use the [NEXT] and [PREVIOUS] buttons to select the different parameters available for that selected item (or move the underline cursor from field to field). Then use the [+] and [-] buttons to increase or decrease the value by one (or select the next option), or the [++] and [--] buttons to increase or decrease the value in large jumps. In situations where you are to carry out (execute) a command (to format a floppy disk, for example), you'll normally press the [+] button.

As always, the best way to really appreciate what these parameters do is to try them out! (Setting a parameter to its extreme values can really make clear the effect it has.)

UPPER/LOWER/BASS SECTIONS

[TONE] Parameters

These parameters apply to Tone 1 and Tone 2 sounds. They can be accessed in the LCD whenever you press a Tone button:

Prg: 1-128 Bnk: 0-127
Tone Name

The first parameter allows you to select the desired Program (Prg) Number. Pressing the [+] and [-] buttons allow you to move through all 127 Program Numbers. (The [++]/[--] buttons advance/move backward through the numbers eight at a time.) Press the [NEXT] button to select the Bank (Bnk) field. This parameter allows you to select the desired Bank Number. Now, when you press the [+]/ [-] buttons you'll move through any Variation Tones which exist for the selected Program Number.

Map: Synth, PR-300, Organ

This parameter allows you to select the desired Tone Map. Press the [NEXT] button to select this parameter. Pressing the [+] and [-] buttons selects the different Tone Map options.

Octave: Down 1, Normal, Up 1

This parameter allows you to select the desired octave setting. Press the [NEXT] button to select this parameter. Press the [+]/[-] buttons to make the desired octave setting. (This parameter does not affect Drawbar Tones.)

Rev: 0-127 Cho: 0-127

The first parameter allows you to set the reverb level. Press the [NEXT] button to select the Rev parameter. Use the [+] and [-] buttons (or the [++]/[--] buttons) to set the reverb level. Press the [NEXT] button to select the Chorus (Cho) parameter. Use the [+] and [-] buttons (or the [++]/[--] buttons) to set the chorus level. (The Chorus parameter has no effect if a Classic Organ Tone has been assigned to the specific Tone button.)

[TONE 1]+ [TONE 2] Parameters

These parameters apply to all Tone 1 sounds and to Tone 2 sounds on an individual basis.

Min Note: C0-G10

This parameter allows you to determine the lowest note number in the active range. Use the [++] and [--] buttons to set the lowest note number.

Max Note: C0-G10

This parameter allows you to determine the highest note number in the active range. Use the [++] and [--] buttons to set the highest note number.

Wind Sag: 0-10

This parameter - which applies to Classic Organ Sounds only - allows you to determine the level of wind sag, the degree of pitch change heard in pipe organs as the result of lowered air pressure when several notes are played at once. Use the [++] and [--] buttons to set this level.

[SOLO] Parameters

These parameters allow you to select and modify the Solo Tone when the [SOLO] button is pressed:

Prg: 1-128 Bnk: 0-127
Tone Name

The first parameter allows you to select the desired Program (Prg) Number. Pressing the [+] and [-] buttons allow you to move through all 127 Program Numbers. (The [++]/[--] buttons advance/move backward through the numbers eight at a time.) Press the [NEXT] button to select the Bank (Bnk) field. This parameter allows you to select the desired Bank Number. Now, when you press the [+]/ [-] buttons you'll move through any Variation Tones which exist for the selected Program Number.

Map: Synth, PR-300, Organ

This parameter allows you to select the desired Tone Map. Press the [NEXT] button to select this parameter. Pressing the [+] and [-] buttons selects the different Tone Map options.

Octave: Down 1, Normal, Up 1

This parameter allows you to select the desired octave setting. Press the [NEXT] button to select this parameter. Press the [+]/[-] buttons to make the desired octave setting.

Rev: 0-127 Cho: 0-127

The first parameter allows you to set the reverb level. Press the [NEXT] button to select the Rev parameter. Use the [+] and [-] buttons (or the [++]/[--] buttons) to set the reverb level. Press the [NEXT] button to select the Chorus (Cho) parameter. Use the [+] and [-] buttons (or the [++]/[--] buttons) to set the chorus level.

Solo Mode: Poly, First, Last, Low, High, Sequence, Up, Down, Up & Down, Wander, Random, Chord

This parameter allows you to select the mode of operation for the Solo function. Press the [NEXT] button to select this parameter. Use the [+]/[-] buttons to select the mode. See page 31 for details .

Roll Time: 0-127

This parameter allows you to set the time delay the unit waits before playing the sound when you play a note in the opposite direction from the Solo mode type. (For example, when playing down the keyboard when the 'High' mode is selected.) Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to make the Roll setting. (This controls the degree to which legato playing is 'followed'.)

Min Note: C0-G10

This parameter allows you to set the lowest note in the range over which the Solo Tone will be heard. Press the [NEXT] button to select this parameter. Use the [+] and [-] buttons to select the lowest note in the range. (Use the [++]/[--] buttons to make larger setting changes.)

Max Note: C0-G10

This parameter allows you to set the highest note in the range over which the Solo Tone will be heard. Press the [NEXT] button to select this parameter. Use the [+] and [-] buttons to select the highest note in the range. (Use the [++]/[--] buttons to make larger setting changes.)

Wind Sag: 0-10

This parameter - which applies to Classic Organ Sounds only - allows you to determine the level of wind sag, the degree of pitch change heard in pipe organs as the result of lowered air pressure when several notes are played at once. Use the [++] and [--] buttons to set this level.

[OCTAVE +/-] Parameter

The [+/- OCTAVE] button allows you to change the octave setting for the selected keyboard. By simply pressing this button, one of three options can be selected:

Red LED : pitch is raised by an octave (Up 1)
Green LED : pitch is lowered by an octave (Down 1)
LEDs dark : Standard or normal pitch

[ORGAN TREM] Parameters

These parameters (which only apply to some Classic Organ Tones) allow you to adjust the Organ Tremolo settings. Press either [ORGAN TREM] button to access these parameters:

Upper/Lower Organ Trem
Depth: 0-127

This parameter allows you to set the depth of the organ tremolo effect. Press the [+] and [-] buttons (or the [++]/[--] buttons) to set the depth.

Rate: 0-127

This parameter allows you to set the rate or speed of the organ tremolo effect. Press [NEXT] to select this parameter. Press the [+] and [-] buttons (or the [++]/[--] buttons) to set the rate.

Depth TC: 0-127

This parameter allows you to set the depth time constant; the rate of change of the depth. Press [NEXT] to select this parameter. Press the [+] and [-] buttons (or the [++]/[--] buttons) to set the depth time constant.

Rate TC: 0-127

This parameter allows you to set the rate time constant; the rate of the change in the rate! Press [NEXT] to select this parameter. Press the [+] and [-] buttons (or the [++]/[--] buttons) to set the rate time constant.

Drawbar Parameters

These parameters apply to Drawbar Tones and are accessed by pressing any [CURRENT DRAWBAR] button or any one of the [DRAWBAR PRESET] buttons ([A], [B] or [C]):

PARAMETERS ACCESSED THROUGH PHYSICAL DRAWBARS		
Upper And Lower Only	**Upper Only**	**Bass Only**
16' Drawbar 5 1/3' Drawbar 8' Drawbar 4' Drawbar 2 2/3' Drawbar 2' Drawbar 1 3/5' Drawbar 1 1/3' Drawbar 1' Drawbar	4' Percussion Drawbar 2 2/3' Percussion Drawbar	16' Composite Drawbar 16' Composite Harmonics 8' Composite Drawbar 8' Composite Harmonics

Drawbar (Lower Manual)
4' Perc: 0-127

This parameter is a software version of the Upper manual's Perc 4' drawbar (as there is no physical drawbar here). Use the [+]/[-] buttons to make the setting.

Drawbar (Lower Manual)
2 2/3' Perc: 0-127
This parameter is a software version of the Upper manual's Perc 2 2/3' drawbar (as there is no physical drawbar here). Use the [+]/[-] buttons to make the setting.

Drawbar
Gain: 0-127
This parameter allows you to set the overall gain (level) of the Drawbar sounds. Set the gain with the [+]/[-] (or [++]/[--]) buttons. WARNING: It is possible to create 'digital clipping' (a particularily nasty form distortion) if this parameter is set too high for particular combinations of Drawbar and Percussion Drawbars.

Perc Time: 0-127
This parameter allows you to set the duration of the percussion envelope. Press [NEXT] to select this parameter. Set the duration with the [+]/[-] (or [++]/[--]) buttons.

Perc Mode: Sngl, Mult, SnglV, MultV
This parameter allows you to select a percussion trigger mode. With the single trigger mode (Sngl), one percussion envelope is used for all notes played, regardless of when they are triggered in the envelope cycle. In the multiple trigger mode (Mult), the percussion envelope is unique for each note played and starts when the note is triggered. SingleV (SnglV) and MultipleV (MultV) are the same as single and multiple modes except that the envelopes are velocity sensitive. Press [NEXT] to select this parameter. Set the percussion mode with the [+]/[-] buttons.

PercRecover: 0-127
This parameter allows you to set the time required for the percussion envelope to recover to the full level after triggering and releasing notes. Press [NEXT] to select this parameter. Set the percussion recover time with the [+]/[-] (or [++]/[--]) buttons.

Click Level: 0-127
This parameter allows you to set the level of click noise heard. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons to set the click level; higher numbers mean a greater level of click noise. (Turn drawbar click on/off with the [DRAWBAR CLICK] button in the EFFECTS section.)

Click Time: 0-127
This parameter allows you to set the duration of click noise heard. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons to set the click time; higher numbers mean a longer click time.

Min Note: C0-G10
This parameter allows you to determine the lowest note number in the active range. Use the [+]/[-] (or [++]/[--]) buttons to set the lowest note number.

Max Note: C0-G10
This parameter allows you to determine the highest note number in the active range. Use the [+]/[-] (or [++]/[--]) buttons to set the highest note number.

[MIDI] Parameters

These parameters allow you to set MIDI functions when external MIDI devices are being used. Press the [MIDI] button in the desired section (UPPER, LOWER or BASS) to access these parameters:

Upper/Lower/Bass MIDI

Port: 1, 2

This parameter allows you to select the MIDI OUT port to be used for data transmission. Use the [+] and [-] buttons to select the port.

Channel: 1-16

This parameter allows you to select the channel on which MIDI data will be transmitted. Press the [NEXT] button to select this parameter. Use the [+] and [-] buttons to set the MIDI channel.

Prg: 0-128 Bnk: 0-127

The first parameter allows you to determine which Program Number will be transmitted. Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to set the Program Number. Press the [NEXT] button to select the Bank (Bnk) parameter. Use the [+] and [-] (or [++]/[--]) buttons to set the Bank Number. (A Prg or Bnk Number of '0' means that no Program Change or Bank select messages are transmitted.)

Bnk LSB: 0-127

This parameter allows you to determine which LSB Bank (Control Change 32) will be transmitted. Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to set the Bank LSB Number.

Transpose: -127-127

This parameter allows you to set the amount of pitch transposition in the MIDI data. Press the [NEXT] button to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons to make the transposition setting.

Min Note: C0-G10

This parameter allows you to determine the lowest note number in the active range. Use the [+]/[-] (or [++]/[--]) buttons to set the minimum note number.

Max Note: C0-G10

This parameter allows you to determine the highest note number in the active range. Use the [+]/[-] (or [++]/[--]) buttons to set the highest note number.

Volume: 0-127

This parameter allows you to set the volume of transmitted MIDI data. Press the [NEXT] button to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons to set the volume.

Rev: 0-127

This parameter allows you to determine the reverb level. Use the [++] and [--] buttons to set the reverb level.

Cho: 0-127

This parameter allows you to determine the chorus level. Use the [++] and [--] buttons to set the chorus level.

[KEYBD BASS] Parameter

This parameter affects the Keybass section (when it is active). Press the [KEYBD BASS] button in the BASS section to access this parameter:

Keyboard Bass
Split: E2-G8

This parameter allows you to set the split point for the Keybass section. Press the [+] and [-] (or [++]/[--]) buttons to set the split point.

Bass [SUSTAIN] Parameters

These parameters allow you to affect Bass sustain and other Bass functions. Press the [SUSTAIN] button in the BASS section to access these parameters:

Bass Synth
Sustain Time: 0-10

This parameter allows you to set the level of sustain (release time) for Synth Bass notes; it affect both the Keybass and the Pedalboard. Set the level with the [+]/[-] buttons.

Solo Mode: Poly, First, Last, Low, High

This parameter allows you to set the Solo mode for the Bass section(s). The Bass Solo function operates in the same way as the Solo function for the Upper and Lower manuals. Press the [NEXT] button to select this parameter. Use the [+] and [-] buttons to select the Solo mode. (If set to an option other than 'Poly', new notes played will 'clip' (cut off) previous notes.)

Roll Time: 0-127

This parameter allows you to set the delay time (in milliseconds) the unit waits before playing the sound when you play a note in the opposite direction from the Solo mode type. (For example, when playing down the keyboard when the 'High' mode is selected.) Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to make the Roll setting.

EFFECTS SECTION

[MANUAL DRUMS] Parameters

These parameters affect Manual Drums functions. Press the [MANUAL DRUMS] button in the EFFECTS section to access these parameters:

Manual Drums
Split: E2-G8

This parameter allows you to set the manual drums split point. Use the [+] and [-] (or [++]/[--]) buttons to set the split point.

Manual Drums
Standard Set 1, Standard Set 2, Room Set, Power Set, Electric Set, TR808&909 Set, Dance Set, Jazz Set, Brush Set, Orchestra Set, Ethnic Set, Kick/Snare Set, SFX Set, Rhythm FX Set

This parameter allows you to select the desired Drum Set. Press [NEXT] to select this parameter. Use the[+]/[-] buttons to select the Drum Set. (These Drum Sets are available when the 'Synth Drums' Tone map is selected, see page 146.)

Map: Synth Drums, PR-300 Drums

This parameter allows you to select the desired Tone map for Manual Drums sounds. Press [NEXT] to select this parameter. Use the[+]/[-] buttons. (Synth Drum Sets are listed on page 146 and PR-300 Drum Sets are listed on page 147.)

Volume: 0-127

This parameter allows you to select the overall volume for Manual Drums sounds. Press [NEXT] to select this parameter. Use the[+]/[-] or [++]/[--] buttons.

[UPPER DB VIB] + [LOWER DB VIB] Parameters

These parameters affect Drawbar vibrato and are accessible when you press either the [UPPER DB VIB] or [LOWER DB VIB] button in the EFFECTS section:

Drawbar Vibrato
Rate: 0-127

This parameter allows you to select the rate (speed) of the vibrato effect. Use the [+] and [-] buttons to set the rate.

Depth: 0-50

This parameter allows you to set the vibrato depth (intensity). Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to set the vibrato depth.

Efx Level: 0-127

This parameter allows you to adjust the level of the vibrato effect. Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to set the level.

Dry Level: 0-127

This parameter allows you to set the level of the dry (unprocessed) signal. Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to set the level.

Phase: 0-120
This parameter allows you to adjust the phase angle of the effect. Press the [NEXT] button to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons to set the phase angle.

[DRAWBAR DISTORT] Parameters

These parameters affect the Drawbar distortion sound. Press the [DRAWBAR DISTORT] button in the EFFECTS section to access these parameters:

Drawbar Distort
Input Gain: -50-50
This parameter allows you to set the input gain which determines the amount of distortion that will be heard. Use the [+]/[-] buttons to set the gain level. (This parameter is variable to allow the input signal to reach the threshold (see the following).)

Ret Level: 0-127
This parameter allows you to set the return level; the volume of the distortion sound. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to set the level.

(Note: The Threshold, Flatten and Peaking parameters represent very technical aspects of sound manipulation. Rather than trying to explain the technicalities of what is happening, we urge you to experiment - your ears will tell you when you've got the sound you want!)

Threshold P: -10-10
This parameter allows you to set the positive (P) threshold point; the point at which the following parameters will take effect. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to set the positive threshold; lower numbers mean the Flatten and Peaking parameters will have a greater affect; signals below this threshold are unaffected.

Threshold N: -10-10
This parameter allows you to set the negative (N) threshold point; the point at which the following parameters will take effect. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to set the negative threshold; higher numbers mean the Flatten and Peaking parameters will have a greater affect; signals above this threshold are unaffected.

Flatten P: -50-50
This parameter allows you to control the positive (P) rounding shape of the waveform above Threshold P. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to shape the waveform.

Flatten N: -50-50
This parameter allows you to control the negative (N) rounding shape of the waveform below Threshold N. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to shape the waveform.

Peaking P: -50-50
This parameter allows you to adjust the positive (P) peaking shape of the waveform above Threshold P. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to adjust the positive peak signal.

Peaking N: -50-50
This parameter allows you to adjust the negative (N) peaking shape of the waveform below Threshold N. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to adjust the negative peak signal.

[DRAWBAR CLICK] Parameter

This button turns the Drawbar Click effect on and off and also allows you to access the Click Filter parameter. Use the [+]/[-] (or [++]/[--]) buttons to set the 'Click Flt' level (0-127); the brightness of the click noise heard. Additional Drawbar Click parameters can be accessed by pressing the [CURRENT DRAWBAR] button or any of the [DRAWBAR PRESET] buttons ([A], [B] or [C]).

[CROSSFADE] Parameters

These parameters affect the crossfade function (a velocity or aftertouch controlled mixing function). When two layers or Tones are selected, different playing velocities will result in different amounts of the two sounds being heard. Press the [CROSSFADE] button in the EFFECTS section to access these parameters:

Crossfade

Kbd: Upper, Lower, Upper+Lower, Pedal, Pedal+Upper, Pedal+Lower, All

This parameter allows you to select the keyboard(s) to use with the crossfade function. Use the [+]/[-] buttons to select the desired option.

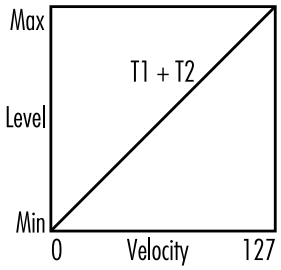
Layer: Tone 2, Solo

This parameter allows you to select which Tone the layer function applies to. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select the desired layer.

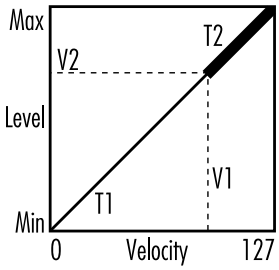
Mode: Normal, Switch, Add, Fade, 2nd Touch

This parameter allows you to select the crossfade mode. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to select the desired mode:

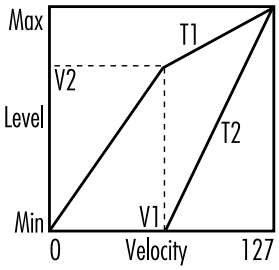
- **Normal:** Both Tone 1 (T1) and Tone 2 (T2) sound simultaneously and increase in volume at the same rate when playing velocity increases.
- **Switch (Velocity Switch):** T1 sounds whenever the playing velocity is lower than a user-selectable threshold (V1) and T2 sounds whenever playing velocity is greater than the threshold. The starting velocity for T2 is set by V2 (the selectable offset).
- **Add (Velocity Add):** As above, but T2 is added to T1 instead of replacing it; T2 starts building from the zero level.
- **Fade (velocity Fade):** T1 is heard at a loud level until a user-selectable threshold is reached (V1). As playing velocity increases, T1 decreases in volume and T2 increases in volume.
- 2nd Touch (Aftertouch): Uses aftertouch to control the T2 sound. When aftertouch pressure exceeds the user-set 'on' threshold, T2 plays at the same velocity level as T1. T2 turns off when the aftertouch pressure falls below the 'off' threshold. (The 'off' threshold is fixed relative to (and less than) the 'on' threshold.)



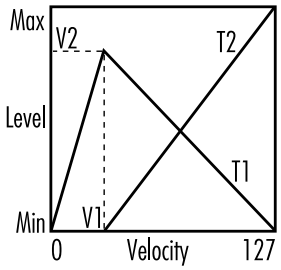
NORMAL



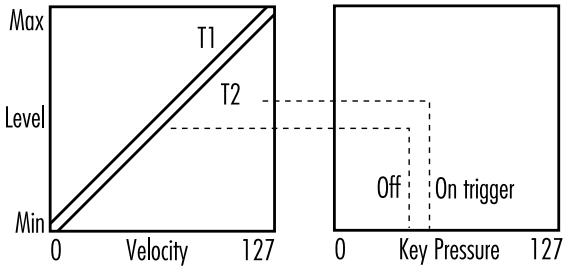
VELOCITY SWITCH



VELOCITY ADD



VELOCITY FADE



SECOND TOUCH (Aftertouch)

V1: 0-15 V2: 0-15

The first parameter allows you to set the velocity threshold for Tone 1. Press [NEXT] to select this parameter. Use the [+]/[-] buttons to set the threshold level. Press [NEXT] to select the V2 parameter; the velocity offset for Tone 2 after the threshold is reached. Use the [+]/[-] buttons to set the offset level.

[AFTERTOUCH] Button

Aftertouch is modulation added by exerting pressure on a keyboard key after it has already been pressed down (i.e. at the bottom of the key travel). The aftertouch effect can be used as a controller on the W-5000's Lower manual only. Aftertouch is assigned under the [CONTROLS] button. The [AFTERTOUCH] button in the EFFECTS section is an on/off switch for this function.

[GENERAL REVERB] Parameters

These parameters affect the reverb settings. Press the [GENERAL REVERB] button in the EFFECTS section to access these parameters:

General Reverb

Type: Room 1, Room 2, Room 3, Hall 1, Hall 2, Plate, Delay, Pdelay

This parameter allows you to select the type of reverb you'd like to use. Each type simulates a different kind of enclosed space with different characteristics. Use the[+]/[-] buttons.

Level: 1-127

This parameter allows you to set the level of post-reverb signal (the processed or 'wet' signal) being mixed with the dry (straight) signal. Press [NEXT] to select this parameter. Set the return level with the [+]/[-] (or [++]/[--]) buttons.

Filter: 0-7

This parameter allows you to set the pre-LPF frequency. (A Low Pass Filter is a kind of tone control which filters out frequencies above a set point.) Press [NEXT] to select this parameter. Use the [+]/[-] buttons.

Time: 0-127

This parameter allows you to set the reverb time (the time it takes the reverb sound to decay). Press [NEXT] to select this parameter. Use the[+]/[-] (or [++]/[--]) buttons to set the reverb time.

Feedback: 0-127

This parameter allows you to set the feedback level. Press [NEXT] to select this parameter. Use the[+]/[-] (or [++]/[--]) buttons to set the feedback level.

Chorus Send: 0-127

This parameter allows you to set the amount of post-reverb signal being mixed back into the chorus input. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons.

[SYNTH CHORUS] Parameters

These parameters affect the chorus settings. Press the [SYNTH CHORUS] button in the EFFECTS section to access these parameters:

Synth Chorus

Level: 1-127

This parameter allows you to set the level of post-chorus signal (the processed or 'wet' signal) being mixed with the dry (straight) signal. Press [NEXT] to select this parameter. Set the return level with the [+]/[-] (or [++]/[--]) buttons.

Filter: 0-7
This parameter allows you to set the level of the pre low-pass filter. Press [NEXT] to select this parameter. Set the level with the [+]/[-] buttons.

Feedback: 0-127
This parameter allows you to set the Synth chorus feedback level. Press [NEXT] to select this parameter. Use the[+]/[-] (or [++]/[--]) buttons to set the feedback level.

Delay: 0-127
This parameter allows you to set the Synth chorus delay level. Press [NEXT] to select this parameter. Use the[+]/[-] (or [++]/[--]) buttons to set the delay time.

Rate: 0-127
This parameter allows you to set the Synth chorus rate (speed). Press [NEXT] to select this parameter. Use the[+]/[-] (or [++]/[--]) buttons to set the rate.

Depth: 0-127
This parameter allows you to set the Synth chorus depth. Press [NEXT] to select this parameter. Use the[+]/[-] (or [++]/[--]) buttons to set the depth.

Reverb Send: 0-127
This parameter allows you to set the amount of post-chorus signal being mixed back into the reverb input. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons.

[TRANSPOSE] Parameter

This parameter affects the transpose function. Press the [TRANSPOSE] button in the EFFECTS section to access this parameter:

Transpose
Pitch: C#-1-B0
This parameter allows you to set the amount of pitch transposition (in semitone steps). Use the [+]/[-] buttons to set the transposition; 'C0' is standard pitch. (You can also set the transposition by holding down the [TRANSPOSE] button (in the 'on' position) and pressing a key (on any keyboard) relative to Middle 'C'.)

GENERAL CONTROLS

[ROTARY] Parameters

These parameters affect the rotary simulator. Press the [ROTARY] button to access these parameters:

Rotary Control: Intern, Extern, Both, None

This parameter allows you to select the type of rotary control. Use the [+] and [-] buttons. If set to 'Intern', [ROTARY] and [FAST/SLOW] effects will only affect the internal rotary simulator.

Tw Level: 0-127

This parameter allows you to set the tweeter (high frequency driver) level. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Wf Level: 0-127

This parameter sets the woofer (low frequency driver) level. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Separation: 0-127

This parameter sets the depth of tweeter modulation. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Wf ModDepth: 0-99

This parameter sets the woofer modulation depth. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

DrySend Off: 0-99

This parameter sets the amount of Drawbar signal routed when the [ROTARY] button is off. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

DrySend On: 0-99

This parameter sets the amount of dry (straight) Drawbar signal routed when the [ROTARY] button is on. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

EfxSend On: 0-99

This parameter sets the amount of wet (processed) signal being mixed with the dry (straight) signal when the [ROTARY] button is lit. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Out Level: 0-127

This parameter sets the output level. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Color: Mellow, Bright

This parameter sets the rotary simulator's tone color. Press [NEXT] to select this parameter. The 'Mellow' setting simulates the installation of the tremolo rotor rear door, whereas 'Bright' simulates removal of the door. Use the [+] and [-] buttons.

[FAST/SLOW] Parameters

These parameters control the rotary simulator's speed changes. Press the [FAST/SLOW] button to access these parameters:

Rotary Slow/Fast

Tw Rise Time: 0-9

This parameter sets the tweeter's rise (speed up) time. Use the [+] and [-] buttons.

Tw Fall Time: 0-9

This parameter sets the tweeter's fall (slow down) time. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Wf Rise Time: 0-9

This parameter sets the woofer's rise time. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Wf Fall Time: 0-9

This parameter sets the woofer's fall time. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Tw Slow Spd: 0-127

This parameter sets the tweeter's slow rotation speed. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Tw Fast Spd: 0-127

This parameter sets the tweeter's fast rotation speed. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Wf Slow Spd: 0-127

This parameter sets the woofer's slow rotation speed. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Wf Fast Spd: 0-127

This parameter sets the woofer's fast rotation speed. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

[MEMORY] (General Preset) Parameter

Press the [MEMORY] button to access this parameter:

Memory Select

Mode: Rodgers, GS

This parameter selects the preset memory representation by the MIDI Master System. 'Rodgers'; General Preset memory denoted by Program Changes #31 and #32, and by Presets not preceded by Control Changes #0 and #32. 'GS'; General Preset memory denoted by Control Change #0. Use the [+] and [-] buttons.

FUNCTIONS SECTION

[CONTROLS] + [VOICING] Parameters

Please refer to 'Voicing & Controller Settings' (page 66) for a complete explanation of these parameters and settings.

[CONTROLS] Parameters

Keyboards : All, Upr, Lwr, Ped
Layers : All, Tone1, Tone2, Dbar, MIDI, Solo
Controllers : BendR, BendL, Mod, AfterT, Exp, ExtExp, User1, User2, LeftFS, RghtFS, ExtFS, Pedals

Mappable Destinations	Values	Voicable Destinations	Values	Switchable Destinations	Values
Pitch (semitones)	-12-12	Vel Sense	-	Sustain	0, 1
Volume	-20-20	Vel Offset	-	Sostenuto	0, 1
Vib Rate	-25-25	Glide Time	-	Soft	0, 1
Vib Depth	-25-25	Vib Delay	-	Glide	0, 1
Cutoff	-25-25			Rotary S/F	0, 1
Resonance	-25-25				
Attack	-25-25				
Decay	-25-25				
Release	-25-25				
Pan	-16-16				
Detune (cents)	-25-25				
Hz Detune (0.2 Hz)	-25-25				
Seq Volume	-20-20				
Drum Volume	-20-20				

[VOICING] Parameters

Keyboards : All, Upper, Lower, Pedal
Layers : All, Tone 1, Tone 2, Drawbar, MIDI, Solo

Mappable Destinations	Values	Voicable Destinations	Values	Switchable Destinations	Values
Pitch (semitones)	0-20	Vel Sense	-10-10	Sustain	-
Volume	-10-10	Vel Offset	-10-10	Sostenuto	-
Vib Rate	-10-10	Glide Time	-10-10	Soft	-
Vib Depth	-10-10	Vib Delay	-10-10	Glide	-1, 0, 1
Cutoff	-10-10			Rotary S/F	-
Resonance	-10-10				
Attack	-10-10				
Decay	-10-10				
Release	-10-10				
Pan	-10-10				
Detune (cents)	-25-25				
Hz Detune (0.2 Hz)	-25-25				
Seq Volume	-20-20				
Drum Volume	-20-20				

Pitch

This parameter sets the pitch. Use the [+] and [-] buttons. (Used primarily for the pitch bend range.)

Volume
This parameter sets the volume level. Use the [+] and [-] buttons. (Used primarily for Expression.)

Vib Depth
This parameter sets the vibrato depth. Use the [+] and [-] buttons. (Used primarily with modulation and aftertouch; a negative value reduces the normal depth of a sound.)

Vib Rate
This parameter sets the vibrato rate (speed). Use the [+] and [-] buttons. (A negative value reduces the normal rate of a sound.) This parameter also controls the arpeggio speed in the Solo function.

Cutoff
This parameter sets the filter cutoff frequency; this is normally considered to be the 'brightness' of a sound. (Negative values reduce the brightness.) Use the [+] and [-] buttons.

Resonance
This parameter sets the resonance level. (Resonance is a form of frequency emphasis which creates distinctive sounds.) Use the [+] and [-] buttons. (Negative values reduce the resonance level.)

Attack
This parameter sets the attack time, which determines how 'sharp' or 'soft' the initial part of the sound will be. Use the [+] and [-] buttons. (Negative values 'sharpen' the attack.)

Decay
This parameter sets the decay time; the time it takes the sound to fall in volume from the maximum to the decay level. Use the [+] and [-] buttons.

Release
This parameter sets the release time; the time it takes the sound to reach a volume of zero after the key is released. Use the [+] and [-] buttons. (Negative values shorten the release time.)

Pan
This parameter sets the pan position; the sound's position in the L/R stereo spectrum. Negative numbers move the sound towards the left. Use the [+] and [-] buttons.

Seq Volume
This parameter sets the sequencer volume. Use the [+] and [-] buttons. (This parameter works regardless of the settings of the Keyboard or Layer fields found under the [CONTROLS] button.)

Drum Volume
This parameter sets the manual drums volume. Use the [+] and [-] buttons. (This parameter works regardless of the settings of the Keyboard or Layer fields found under the [CONTROLS] button.)

Detune
This parameter makes detune settings; a setting which raises or lowers the pitch in very small increments (cents; 1/100th of a semitone). Detuning one Tone in a layer can create a 'fatter', chorus-like effect. Positive numbers increase the pitch above the normal pitch of the sound. Use the [+] and [-] buttons.

Hz Detune
This parameter makes another kind of detune setting (in 0.2 Hertz steps). Use the [+] and [-] buttons. (Positive numbers raise the pitch above the normal pitch of the sound.)

Vel Sense
This parameter sets the velocity sensitivity. Higher numbers will allow you to produce louder sounds without having to increase your playing strength. Use the [+] and [-] buttons. (A value of '-10' makes the sound completely insensitve to velocity. This value, coupled with a 'Vel Offset' setting allows you to set a constant velocity level.)

Vel Offset
This parameter sets the velocity offset; the minimum velocity level. Use the [+] and [-] buttons.

Glide Time
This parameter sets the glide (portamento) time. Use the [+] and [-] buttons.

Vib Delay
This parameter sets the vibrato delay, the time it takes for the vibrato sound to be heard after a note is played. Use the [+] and [-] buttons.

Sustain
This parameter turns the sustain effect (which causes a note to appear to still be held after it has been released) on and off. Use the [+] and [-] buttons.

Sostenuto
This parameter turns the sostenuto effect on and off. Sostenuto is an effect which sustains only notes that are held when the effect is activated. This allows you to sustain a chord and then play a non-sustained melody. Use the [+] and [-] buttons.

Soft
This parameter turns the soft effect on and off. This is an effect which makes the notes played sound somewhat softer. Use the [+] and [-] buttons.

Glide
This parameter adds an offset (additional) value to the depth value set in the [CONTROLS] menu. Use the [+] and [-] buttons.

Rotary S/F
This parameter turns the rotary S/F effect on and off. Use the [+] and [-] buttons. (This parameter works regardless of the settings of the Keyboard or Layer fields found under the [CONTROLS] button.)

[PRESETS] Parameters

These parameters control a number of housekeeping functions related to General Presets and Global data. Press the [PRESETS] button in the FUNCTIONS section to access these parameters:

Pist Kybd: All, Upper, Lower, Pedal

This parameter allows you to recall only those settings in a General Preset that pertain to one particular keyboard. Use the [+]/[-] buttons to select the desired keyboard.

Reset All (+)

This parameter resets all the W-5000's internal parameters. Be careful when you use this function as it will replace all of your custom settings with the unit's factory defaults! Press [+] to execute. (Can be protected by the 'Reset Lock'.)

Reset Memory (+)

This parameter resets the selected internal memory to factory defaults. Press [NEXT] to select this parameter. Press [+] to execute. (Can be protected by the 'Reset Lock'.)

Reset Preset (+)

This parameter resets the selected General Preset (Piston) to the factory default settings. Press [NEXT] to select this parameter. Press [+] to execute. (Can be protected by the 'Reset Lock'.)

Reset Global (+)

This parameter allows you to reset global parameters to their original factory settings. Press [NEXT] to select this parameter. Press [+] to execute. (Can be protected by the 'Reset Lock'.)

Reset Cancel (+)

This parameter allows you to reset the [CANCEL] button to its original default setting. Press [NEXT] to select this parameter. Press [+] to execute. (Can be protected by the 'Reset Lock'.)

Reset Lock: On, Off

This parameter allows you to enable/disable the Reset functions. Press [NEXT] to select this parameter. Press [+]/[-] to turn the Lock 'On' or 'Off'.

Read Globals (+)

This parameter allows you to re-read the global settings stored in the internal, non-volatile memory, thus resetting any changes you've made to the individual settings since the instrument was turned on (or since you last wrote the globals). Press [+] to execute.

Write Globals (+)

This parameter allows you to write the global settings into the internal non-volatile memory, thus recording any changes you've made to the individual settings so they'll still be there next time you turn the instrument on. Press [+] to execute.

Load Globals (+)

This parameter allows you to read global parameters from disk. Press [NEXT] to select this parameter. Press [+] to execute.

Save Globals (+)
This parameter allows you to save global parameters to disk. Press [NEXT] to select this parameter. Press [+] to execute. (Global data has no overwrite protection, except the protect tab of a floppy disk when Global data is being saved to disk.)

Load Cancel (+)
This parameter allows you to load a [CANCEL] button registration from a floppy disk. Press [NEXT] to select this parameter. Press [+] to execute. (Can be protected by the 'Reset Lock'.)

Save Cancel (+)
This parameter allows you to save the current [CANCEL] button registration to a floppy disk. Press [NEXT] to select this parameter. Press [+] to execute. (Can be protected by the 'Reset Lock'.)

Memory Lock: On, Off
This parameter allows you to turn the Presets overwrite protection on and off. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Delete Folder (+)
This parameter allows you to delete a folder from a floppy disk. Select the folder you wish to delete and use the [+] button.

[SEQ] Parameters

These parameters are used to control the on-board sequencer. Press the [SEQ] button to access these parameters:

Sequence Tempo: 34-312 (beats per minute)
This parameter allows you to set the playback tempo of the song data. Use the [+] and [-] buttons. (If any tempo data is contained in the song file, it will be displayed here.) (This parameter is also automatically set if a Controller is mapped to the Seq Volume destination.)

Sequence Select: Song Title/Song File Name
This parameter allows you to select the desired song. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (If a Song Title is contained in the data, it will be displayed. If not, a file name will appear.)

Volume: 0-127
This parameter allows you to set the desired playback volume. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (This setting is not recorded as part of a song file.) (This parameter is also automatically set if a Controller is mapped to the Seq Volume destination.)

Transpose: -11-11 (semitones)
This parameter allows you to set the pitch transposition for sequence playback (in semitone steps). Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (Percussion sounds cannot be transposed.)

Delete Song (+)
This parameter allows you to delete the selected song data. Press [NEXT] to select this parameter. Press [+] to delete the song.

Change Tempo (+)
This parameter allows you to change the set playback tempo to match the current metronome setting. Press [NEXT] to select this parameter. Press [+] to cactivate this function.

Lock Song (+)
This parameter allows you to lock the selected song data (to protect it against accidental erasure). Press [NEXT] to select this parameter. Press [+] to lock the song. (This setting is stored with the song.)

Unlock Song (+)
This parameter allows you to unlock the selected song data. Press [NEXT] to select this parameter. Press [+] to unlock the song. (This setting is stored with the song.)

Time Sig: 1-16/1, 2, 4, 8, 16, 32
This parameter allows you to set the time signature for recording. Press [NEXT] to select these parameters. Use the [+] and [-] buttons. (If a song file contains time signature data, it will be displayed here.)

Metro Vol: 0-127
This parameter allows you to set the metronome volume (for use when recording). Press [NEXT] to select this parameter. Use [+]/[-] to set the volume.

Play All (+)
This parameter allows you to play all song data on a disk. Press [NEXT] to select this parameter. Press [+] to begin playback.

Sequence Roland
Setup Rules: Yes, No (for compatibility with Roland Music Data)
This parameter allows you to use Roland-compatible sequencer settings if you wish. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See page 75 for more details.)

Map: Synth, PR-300, Organ
This parameter allows you to select the desired Tone Map for playback. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (This setting takes effect only when a song is selected or playback is stopped.)

Sequence MIDI
Play Port: 1, 2
This parameter allows you to select the MIDI OUT port to use for playing back data that was recorded for the UPPER, LOWER and BASS [MIDI] layers. Press [NEXT] to select each parameter. Use the [+] and [-] buttons.

Sequence Channel
U: 1-16 L: 1-16 B: 1-16
This parameter allows you to set the MIDI out channel for playing back data that was recorded for the UPPER, LOWER and BASS [MIDI] layers. Use [NEXT] and [PREVIOUS] to move from field to field. Use the [+] and [-] buttons to select the MIDI channel.

Seq Channel Vol
9999999999999999
This parameter allows you to set the volume (0-9) for each of the 16 available MIDI channels. Press the [NEXT] button to select this parameter (and [NEXT]/[PREVIOUS] to move between channels). Use [+] and [-] to set the channel volumes.

[AUDIO] Parameters

These parameters allow you to configure the W-5000's audio system (refer to the Audio Block Diagram on page 160 for additional information). Press the [AUDIO] button in the FUNCTIONS section to access these parameters:

Audio Aux
Pad: L0-255 R0-255

The first parameter allows you to set the left AUX INPUT pad (attenuation) level. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons. Press [NEXT] to select the 'R' parameter field. Set the right attenuation pad with the [+] and [-] (or [++]/[--]) buttons. (A value of '0' completely mutes the input. A value of '192' is 'Unity' gain. A value of '255' is +31.5dB.)

Audio Aux
Gain: +0db, +6db, +12db, +18db

This parameter allows you to set the AUX INPUT (L/R) gain level. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Audio Aux Left
Spkr: L0-127 R0-127

This parameter allows you to direct the left auxiliary input signal to either the left or right channels of the Speaker mix. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Right
Spkr: L0-127 R0-127

This parameter allows you to direct the right auxiliary input signal to either the left or right channels of the Speaker mix. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Left
Line: L0-127 R0-127

This parameter allows you to direct the left auxiliary input signal to either the left or right channels of the Line mix. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Right
Line: L0-127 R0-127

This parameter allows you to direct the right auxiliary input signal to either the left or right channels of the Line mix. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Left
DBar: L0-127 R0-127

This parameter allows you to direct the left auxiliary input signal to either the left or right DRAWBAR OUTPUT jack. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Right
DBar: L0-127 R0-127

This parameter allows you to direct the right auxiliary input signal to either the left or right DRAWBAR OUTPUT jack. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Left
Org: L0-127 R0-127
This parameter allows you to direct the left auxiliary input signal to either the left or right CLASSIC OUTPUT jack. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Right
Org: L0-127 R0-127
This parameter allows you to direct the right auxiliary input signal to either the left or right CLASSIC OUTPUT jack. Press [NEXT] to select this parameter and to move to the next field. Use the [+] and [-] (or [++]/[--]) buttons to set the relative levels.

Audio Aux Left
RevSnd: 0-127
This parameter allows you to set the left auxiliary reverb send level; the amount of left AUX INPUT signal that is sent to the W-5000's reverb unit. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Aux Right
RevSnd: 0-127
This parameter allows you to set the right auxiliary reverb send level; the amount of left AUX INPUT signal that is sent to the W-5000's reverb unit. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Syn
Bass: -14, -12, -10 ... 0 ... 10, 12, 14
This parameter allows you to set the bass 'tone control' for the Synth generator. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Audio Syn
Treble: -14, -12, -10 ... 0 ... 10, 12, 14
This parameter allows you to set the treble 'tone control' for the Synth generator. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Audio Syn
Spkr Mix: 0-127
This parameter allows you to set the level of Synth sounds in the Speaker mix. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Syn
Line Mix: 0-127
This parameter allows you to set the level of Synth sounds in the Line mix. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Syn
Out Level: 0-127
This parameter allows you to set the level of Synth sounds that go to the SYNTH OUTPUT jacks. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Org
Spkr Mix: 0-127
This parameter allows you to set the level of Classic Organ sounds in the Speaker mix. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Org
Line Mix: 0-127
This parameter allows you to set the level of Classic Organ sounds in the Line mix. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Org
Out Level: 0-127
This parameter allows you to set the level of Classic Organ sounds that go to the CLASSIC OUTPUT jacks. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio DBar
Spkr Mix: 0-127
This parameter allows you to set the level of the post-rotary simulator Drawbar sounds in the Speaker mix. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio DBar
Line Mix: 0-127
This parameter allows you to set the level of the post-rotary simulator Drawbar sounds in the Line mix. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio DBar
Out Level: 0-127
This parameter allows you to set the level of the post-rotary simulator Drawbar sounds that go to the DRAWBAR OUTPUT jacks. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio DBar
Rev Send: 0-127
This parameter allows you to set the level of the post-rotary simulator Drawbar signal sent to the W-5000's reverb unit. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons.

Audio DBar
Sig Switch: On, Off
This parameter allows you to turn the DRAWBAR OUTPUT signal on and off. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio DBar
Freq Resp: Mellow, Norm
This parameter allows you to set the 'tone color' of the Drawbar signal. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/ [--]) buttons. (This parameter affects the post-rotary simulator signals as well as the pre-rotary simulator signals sent to the ROTARY TONE CABINET connector.)

Audio XRot
Out Level: 0-127
This parameter allows you to set the external rotary (pre-rotary simulator) output level when an external rotary cabinet is being used. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio XRot
Rotary Sig: On, Off
This parameter allows you to turn the non-rotating, pre-rotary simulator Drawbar signal on and off. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Audio XRot
Main Sig: On, Off
This parameter allows you to turn the main external pre-rotary simulator Drawbar signal on and off. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (This is the stationary (Ch. 2) channel of a multi-channel external tone cabinet.)

Audio XRot
Aux Mix: Spkr, Line
This parameter allows you to determine what type of mix is sent to the stereo auxiliary channels of an external tone cabinet. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Audio XRot
Rev Send: 0-127
This parameter allows you to set the amount of pre-rotary simulator Drawbar signal being sent to the W-5000's reverb unit. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons.

Audio Rev Return
Org Out: 0-127
This parameter allows you to set the amount of the W-5000's reverb signal being sent to the CLASSIC OUTPUTs. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons.

Audio Rev Return
Dbar Out: 0-127
This parameter allows you to set the amount of the W-5000's reverb signal being sent to the post-rotary simulator DRAWBAR OUTPUTs. Press [NEXT] to select this parameter. Use the [+]/[-] (or [++]/[--]) buttons.

Audio Rev Return
Spkr Mix: 0-127
This parameter allows you to set the amount of the W-5000's reverb signal being sent to the MIXED SPKR OUTPUTs. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio Rev Return
Line Mix: 0-127
This parameter allows you to set the amount of the W-5000's reverb signal being sent to the MIXED LINE OUTPUTs. Press [NEXT] to select this parameter. Use the [+] and [-] (or [++]/[--]) buttons.

Audio DB15
Mix LPF: On, Off
This parameter allows you to route the Mix signal (channels 7 and 8) through a low pass filter before going to the 15-pin connector. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Audio DB15
Mix Sel: Spkr, Line
This parameter allows you to select the Line or Speaker mix for output to channels 7 and 8 of the 15-pin connector. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

[MIDI] Parameters

These parameters allow you to configure the instrument's MIDI Master System settings (a subset of the standard Rodgers MIDI implementation). Press the [MIDI] button in the FUNCTIONS section to access these parameters:

Sync In
Port: None, 1, 2, Both
This parameter tells the W-5000 which port(s) to monitor to receive MIDI Clock, Start, Continue and Stop messages. Press [NEXT] to select this function and the [+]/[-] buttons to select the port(s).

Sync Out
Port: None, 1, 2, Both
This parameter tells the W-5000 which port(s) to transmit MIDI Clock, Start, Continue and Stop messages from. Press [NEXT] to select this function and the [+]/[-] buttons to select the port(s).

Native In
Port: None, 1, 2
This parameter determines which port (if any) the playback sound generation modules are connected to. Press [NEXT] to select this function and the [+]/[-] buttons to select the port.

Native Out
Port: None, 1, 2
This parameter determines which port (if any) is used to record Native Mode sequences. Press [NEXT] to select this function and the [+]/[-] buttons to select the port.

MIDI Native Out
Language: NRPN, CC
W5000 specific controls will be sent to the external sequencer as either Non Registered Parameter Numbers (NRPNs) or Control Changes (CC). NRPN messages may overflow some sequencers, therefore it is best to use the native CC language to reduce MIDI bandwidth.

MIDI Start
Stat Send: None, PC, CC, Both
This parameter allows you to select which MIDI messages the W-5000 sends to the Master MIDI Output when a MIDI real-time Song Start or Song Continue message is received at the MIDI Master Input. Use the [+] and [-] buttons.

MIDI Local Cntl
Upper: On, Off
This parameter allows you to set the local control setting for the Upper manual. Local control is a setting which determines whether or not an internal sound source is connected to a keyboard. When local control is OFF, playing the keyboard will not produce any sound, although MIDI data will be transmitted. This keeps notes from being played twice; once by the internal sound generator and again by the external MIDI device. Press [NEXT] to select this parameter. Use the [+] and [-] buttons to turn the local control setting on or off.

MIDI Local Cntl
Lower: On, Off
This parameter allows you to set the local control setting for the Lower manual. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

MIDI Local Cntl
Pedal: On, Off
This parameter allows you to set the local control setting for the Pedalboard. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

MIDI Mst In
Port: 1, 2
This parameter allows you to select the Master MIDI IN port you want to use. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

MIDI Mst In Chn
U: 1-16 L: 1-16 P: 1-16

This parameter allows you to select the MIDI channels on which data will arrive for the Upper, Lower and Pedal sections. Press [NEXT] to select each parameter. Use the [+] and [-] buttons to set the MIDI channel.

MIDI Mst In Filt
U: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter allows you to determine what type of information will be filtered out of the incoming data for the Upper manual. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See page 96 (in 'Using MIDI') for details on possible values.)

MIDI Mst In Filt
L: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter allows you to determine what type of information will be filtered out of the incoming data for the Lower manual. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See 'Using MIDI', starting on page 96, for details on possible values.)

MIDI Mst In Filt
P: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter allows you to determine what type of information will be filtered out of the incoming data for the Pedal section. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See 'Using MIDI', starting on page 96, for details on possible values.)

MIDI Mst In Exp
CC#: 7, 11

This parameter allows you to determine which Control Change message received at the Master MIDI Input is interpreted as movement of the W-5000's Expression pedal. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

MIDI Mst Out
Port: 1, 2

This parameter allows you to select the Master MIDI OUT port. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

MIDI Mst Out Chn
U: 1-16 L: 1-16 P: 1-16

This parameter allows you to select the MIDI channels on which data will be transmitted for the Upper, Lower and Pedal sections. Press [NEXT] to select each parameter. Use the [+] and [-] buttons to set the MIDI channel.

MIDI Mst Out Flt
U: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter allows you to determine what type of information will be filtered out of the data transmitted by the Upper manual. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See 'Using MIDI', starting on page 96, for details on possible values.)

MIDI Mst Out Flt
L: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All

This parameter allows you to determine what type of information will be filtered out of the data transmitted by the Lower manual. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See 'Using MIDI', starting on page 96, for details on possible values.)

MIDI Mst Out Flt
P: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All
This parameter allows you to determine what type of information will be filtered out of the data transmitted by the Pedal section. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See 'Using MIDI', starting on page 96, for details on possible values.)

MIDI Mst Out Exp
CC#: 7, 11
This parameter allows you to determine which Control Change message is transmitted to the MIDI Master Output when you move the W-5000's Expression pedal. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

MIDI Drum In
Port: 1, 2
This parameter allows you select which MIDI port incoming percussion data will be received through. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (The note data (and Program Change data for Drum Sets) received via this port are mixed with [MANUAL DRUM] events. Therefore, the Manual Drums Volume mappable destination will affect the volume of drums coming from this port as well.)

MIDI Drum In
Channel: 1-16
This parameter allows you to select which MIDI channel percussion data will be received on. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (Channel 10 is normally used to handle percussion data.)

MIDI Drum In
Filter: None, PC, CC, CC+PC, Note, PC+Note, CC+Note, All
This parameter allows you to select which type of incoming data will be filtered. Press [NEXT] to select this parameter. Use the [+] and [-] buttons. (See page 91 (in 'Using MIDI') for details on possible values, except for 'PC' which in this case indicates Drum Set selection, not General Preset selection.)

MIDI Output
Initialize (+)
This parameter allows you to initialize any external sound module(s) connected to the W-5000. This function should be performed immediately after you're started recording with an external sequencer. Press (+) to proceed.

[UTILITY] Parameters

These parameters control a variety of overall system functions. Press the [UTILITY] button in the FUNCTIONS section to access these parameters. Note that the Time and Date is initially displayed when the [UTILITY] button is pressed.

Master Tune: -50-50 (cents; 1/100 of a semitone)
This parameter allows you to tune the W-5000 to match the pitch of other instruments. Press [NEXT] to select this parameter. Use the [+] and [-] buttons to tune the instrument. (Selecting this parameter also results in GS tuning messages being sent over ports selected for the UPPER, LOWER and BASS [MIDI] layers. This data, however, is NOT recorded in a sequence.)

LCD Contrast: 0-9
This parameter allows you to adjust the LCD contrast. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Panel Lamp: High, Low, Off
This parameter allows you to adjust the instrument's panel lights. Press [NEXT] to select this parameter. Use the [+] and [-] buttons.

Format HD Dsk (+)
This parameter allows you to format a 2HD (high density) floppy disk. Press [NEXT] to select this parameter. Press [+] to execute (format the disk).

Format HD Fst (+)
This parameter allows you to fast format a 2HD (high density) floppy disk. Press [NEXT] to select this parameter. Press [+] to execute (format the disk). (A fast format is essentially just to erase all files and sub-directories from the disk.)

Format DD Dsk (+)
This parameter allows you to format a 2DD (double density) floppy disk. Press [NEXT] to select this parameter. Press [+] to execute (format the disk).

Format DD Fst (+)
This parameter allows you to fast format a 2DD (double density) floppy disk. Press [NEXT] to select this parameter. Press [+] to execute (format the disk). (A fast format is essentially just to erase all files and sub-directories from the disk.)

Update System (+)
This parameter allows you to update the W-5000's system software from a floppy disk. Press [NEXT] to select this parameter. Press [+] to execute (update the system). Be sure the 'Sys Lock' is off.

Make SysDisk (+)
This parameter allows you to create a system disk (that is, to copy the W-5000's system software onto disk). Press [NEXT] to select this parameter. Press [+] to execute (copy the system software). (This is useful for making backup copies of your system software.)

Clear System (+)
This parameter allows you to erase the system software*. Press [NEXT] to select this parameter. Press [+] to execute. (Take care when using this function. If you erase the system software you'll have to load new system software from disk the next time you turn on the instrument.) The 'Sys Lock' must be off before you can execute this function.

* Note that this parameter is used primarily for field service situations.

SW Version
This display indicates the version of the installed operating software and the sample ROM chips.

Sys Lock: On, Off
This parameter allows you to protect the system software from accidental erasure or modification. Press [NEXT] to select this parameter. Use [+]/[-] to turn the Lock switch on and off.

Run Utility (+)
This parameter - **used for test purposes only!** - will function only if the disk inserted into the drive contains a special utility program.

Upper Sens: Low, Norm, High
This parameter allows you to select a velocity sensitivity setting for the Upper manual. Press [NEXT] to select this parameter. Press [+] and [-] to select the desired setting.

Lower Sens: Low, Norm, High
This parameter allows you to select a velocity sensitivity setting for the Lower manual. Press [NEXT] to select this parameter. Press [+] and [-] to select the desired setting.

Pedal Sens: Low, Norm, High
This parameter allows you to select a velocity sensitivity setting for the Pedalboard. Press [NEXT] to select this parameter. Press [+] and [-] to select the desired setting.

DB Growl: On, Off
Adds a lower harmonic that is reminiscent of the bleed-through heard on classic tone wheel organs.

DB Folding: On, Off
This parameter causes the Lower manual drawbar sound to have the same pitch range as the Upper manual, with octave folding (reduction) outside that range. When off, the pitch range of the Lower manual is extended by an octave on the low end. Press [NEXT] to select this parameter. Use [+]/[-] to turn the parameter on and off.

Pedal Cntrl: Off, C3-C5
This parameter allows you to select a Pedalboard pedal as a controller. (When set to a value other than 'Off', the specified pedal functions as a switched (on/off) controller; it does not produce any sound. This switched controller is the 'Pedals' controller assignable under the [CONTROLS] button.) Press [NEXT] to select this parameter. Press [+] and [-] to select the desired pedal.

If the selected pedal is an accidental (a 'sharp'), then the two natural ('white') pedals on either side of the accidental are disabled (they produce no sound). This is so you can rest your heel on these two pedals while your toe controls the accidental (the selected controller). All other pedals continue to produce sound as normal.

Int Expr: Normal, SCurve, Offset, Both
This parameter allows you to select a response curve for the internal Expression pedal:

Normal	: provides a linear response (0-127)
SCurve	: provides a response similar to old Tone-Wheel organs (0-127)
Offset	: provides a linear response (34-127)
Both	: provides a combined SCurve/Offset response.

Ext Expr: Normal, SCurve, Offset, Both
This parameter allows you to select a response curve for an external Expression pedal (connected to the PEDAL jack on the rear panel):

Normal	: provides a linear response (0-127)
SCurve	: provides a response similar to old Tone-Wheel organs (0-127)
Offset	: provides a linear response (34-127)
Both	: provides a combined SCurve/Offset response.

Sticky Edit: On, Off
When on, this parameter causes the last parameter selected within a group to be instantly recalled when that group is selected again. The default setting is Off. Press [NEXT] to select this parameter. Use the [+]/[-] buttons.

Auto Select: On, Off
When turned On, the [Tone 1/Tone 2] tab will automatically switch to the layer that is not currently selected so that additional layers can be added without first selecting the layer.

Utility 12:01AM
Fri Jan 1 1999
This display allows you to set the time, month, date and year (the day of the week will change automatically as you set the month and date). Use the [NEXT] button to select this parameter and then use the [NEXT]/[PREVIOUS] buttons to move from field to field. Use the [+] and [-] buttons to set the time, month, date and year.

SYNTH TONE MAP

PR	BN	INSTRUMENT	VOICE
PIANO			
001	000	Piano 1	1
	008	Piano 1w	1
	016	Piano 1d	1
002	000	Piano 2	1
	008	Piano 2w	1
003	000	Piano 3	1
	001	EG+Rhodes 1	2
	002	EG+Rhodes 2	2
	008	Piano 3w	1
004	000	Honky-tonk	2
	008	Old Upright	2
005	000	E.Piano 1	2
	008	St.Soft EP	2
	016	FM+SA EP	2
	024	60's E.Piano	1
	025	Hard Rhodes	2
	026	Mellow Rhodes	2
006	000	E.Piano 2	2
	008	Detuned EP 2	2
	016	St.FM EP	2
	024	Hard FM EP	2
007	000	Harpsichord	1
	008	Coupled Hps.	2*
	016	Harpsi.w	1
	024	Harpsi.o	2
008	000	Clav.	1
CHROMATIC PERCUSSION			
009	000	Celesta	1*
010	000	Glockenspiel	1
011	000	Music Box	1
012	000	Vibraphone	1
	001	Hard Vibe	2
	008	Vib.w	1*
013	000	Marimba	1
	008	Marimba w	1
	016	Balaphon	1
	017	Balaphon 2	1
	024	Log drum	1
014	000	Xylophone	1
015	000	Tubular-bell	1*
	008	Church Bell	1*
	009	Carillon	1*
016	000	Santur	1*
	001	Santur 2	2
	008	Cimbalon	2
ORGAN			
017	000	Organ 1	1
	001	Organ 101	2
	008	Detuned Org.1	2
	009	Organ 109	2
	016	60's Organ 1	1
	017	60's Organ 2	1
	018	60's Organ 3	1
	024	Cheese Organ	1
	032	Organ 4	1
	033	Even Bar	2
	040	Organ Bass	1
018	000	Organ 2	1
	001	Organ 201	2
	008	Detuned Org. 2	2
	032	Organ 5	2
019	000	Organ 3	2*
	008	Rotary Org.	1
	016	Rotary Org. S	1
	024	Rotary Org. F	1
020	000	Church Org. 1	1
	008	Church Org. 2	2
	016	Church Org. 3	2
	024	Organ Flute	1
	032	Trem. Flute	2
021	000	Reed Organ	1*
022	000	Accordion Fr	1
	008	Accordion It	2
023	000	Harmonica	1
	001	Harmonica 2	2
024	000	Bandoneon	1
GUITAR			
025	000	Nylon-str. Gt	1
	008	Ukulele	1
	016	Nylon Gt.o	2
	024	Velo Harmnix	1
	032	Nylon Gt. 2	1
	040	Lequint Gt.	1
026	000	Steel-str. Gt.	1
	008	12-str. Gt	2
	009	Nylon+Steel	2
	016	Mandolin	2
	032	Steel Gt. 2	1
027	000	Jazz Gt.	1*
	001	Mellow Gt.	2
	008	Pedal Steel	1
028	000	Clean Gt.	1
	008	Chorus Gt.	2
029	000	Muted Gt.	1
	001	Muted Dis. Gt.	1
	008	Funk Pop	1
	016	Funk Gt.	1
030	000	Overdrive Gt.	1
031	000	Distortion Gt.	1
	001	Dist. Gt 2	2
	002	Dazed Guitar	2
	008	Feedback Gt.	2
	009	Feedback Gt. 2	2
	016	Power Guitar	2
	017	Power Gt. 2	2
	018	5th Dist.	2
	024	Rock Rhythm	2
	025	Rock Rhythm 2	2
032	000	Gt. Harmonics	1*
	008	Gt. Feedback	1*
	016	Ac.Gt.Harmnx	1
BASS			
033	000	Acoustic Bs.	2
034	000	Fingered Bs.	1
	001	Fingered Bs.2	2
	002	Jazz Bass	1
035	000	Picked Bass	1
	008	Mute PickBs.	1
036	000	Fretless Bs.	1
	001	Fretless Bs. 2	2
	002	Fretless Bs. 3	2
	003	Fretless Bs. 4	2
	004	Syn Fretless	2
	005	Mr. Smooth	2
037	000	Slap Bass 1	1
	008	Reso Slap	1
038	000	Slap Bass 2	2
039	000	Synth Bass 1	2
	001	Synth Bass101	1*
	008	Acid Bass	1
	009	TB303 Bass	1
	010	Tekno Bass	2
	016	Reso SH Bass	1
040	000	Synth Bass 2	2
	001	Synth Bass201	2
	002	Modular Bass	2
	003	Seq Bass	2
	008	Beef FM Bass	2
	009	X Wire Bass	2
	016	Rubber Bass	2*
	017	SH 101 Bass 1	1
	018	SH 101 Bass 2	1
	019	Smooth Bass	2
STRINGS/ORCHESTRA			
041	000	Violin	1
	008	Slow Violin	1
042	000	Viola	1

PRG : Program Change number (PC#)
BNK : Bank number (Variation number) (CC00#)
INSTRUMENT : Instrument name
VOICES : Number of voices used
* : Same sound as in the PR-300 Tone Map
** : A percussive sound that cannot be played melodically.
Play near note C4 (Note Number 60).

PR	BN	INSTRUMENT	VOICE
043	000	Cello	1
044	000	Contrabass	1
045	000	Tremolo Str.	1
	008	Slow Tremolo	1
	009	Suspense Str.	2
046	000	Pizzicato Str.	1
047	000	Harp	1
048	000	Timpani	1
ENSEMBLE			
049	000	Strings	1
	001	Strings 2	1
	008	Orchestra	2
	009	Orchestra 2	2
	010	Tremolo Orch	2
	011	Choir Str.	2
	016	St. Strings	2
	024	Velo Strings	2
050	000	Slow Strings	1
	001	Slow Strings 2	1
	008	Legato Str.	2
	009	Warm Strings	2
	010	St. Slow Str.	2
051	000	Syn. Strings 1	2
	001	OB Strings	2
	008	Syn. Strings 3	2*
052	000	Syn. Strings 2	2*
053	000	Choir Aahs	1
	008	St. Choir	2
	009	Mello Choir	2
	032	Choir Aahs 2	1*
054	000	Voice Oohs	1*
055	000	SynVox	1*
	008	Syn. Voice	2
056	000	Orchestra Hit	2
	008	Impact Hit	2
	009	Philly Hit	2
	010	Double Hit	2
	016	Lo Fi Rave	2
BRASS			
057	000	Trumpet	1
	001	Trumpet 2	1
	008	Flugel Horn	1
	024	Bright Trumpet	2
	025	Warm Trumpet	2
058	000	Trombone	1
	001	Tombone 2	2*
059	000	Tuba	1
	001	Tuba 2	1
060	000	Muted Trumpet	1

PR	BN	INSTRUMENT	VOICE
061	000	French Horns	1
	001	Fr. Horn 2	2*
	008	Fr. Horn Solo	1
	016	Horn Orch.	2
062	000	Brass 1	1*
	008	Brass 2	2
	016	Brass Fall	1
063	000	Synth Brass 1	2
	001	Poly Brass	2
	008	Synth Brass 3	2*
	009	Quack Brass	2
	016	Octave Brass	2
064	000	Synth Brass 2	2*
	001	Soft Brass	2
	008	Synth Brass 4	1*
	016	Velo Brass 1	2
	017	Velo Brass 2	2
REED			
065	000	Soprano Sax	1
066	000	Alto Sax	1
	008	Hyper Alto	1
067	000	Tenor Sax	2
	008	Breathy Tenor	1
068	000	Baritone Sax	1
069	000	Oboe	1
070	000	English Horn	1
071	000	Bassoon	1
072	000	Clarinet	1
	008	Bass Clarinet	1
PIPE			
073	000	Piccolo	1
074	000	Flute	1
075	000	Recorder	1*
076	000	Pan Flute	2
	008	Kawala	2
077	000	Bottle Blow	2
078	000	Shakuhachi	2*
079	000	Whistle	1*
080	000	Ocarina	1*
SYNTH LEAD			
081	000	Square Wave	2*
	001	Square	1*
	002	Hollow Mini	1
	003	Mellow FM	2
	004	CC Solo	2
	005	Shmoog	2
	006	LM Square	2
	008	Sine Wave	1*

PR	BNK	INSTRUMENT	VOICE
082	000	Saw Wave	2*
	001	Saw	1*
	002	Pulse Saw	2
	003	Feline GR	2
	004	Big Lead	2
	005	Velo Lead	2
	006	GR-300	2
	007	LA Saw	1
	008	Doctor Solo	2*
	016	Waspy Synth	2
083	000	Syn. Calliope	2*
	001	Vent Synth	2
	002	Pure PanLead	2
084	000	Chiffer Lead	2*
085	000	Charang	2*
	008	Dist. Lead	2
086	000	Solo Vox	2*
087	000	5th Saw Wave	2*
	001	Big Fives	2
088	000	Bass & Lead	2*
	001	Big & Raw	2
	002	Fat & Perky	2
SYNTH PAD			
089	000	Fantasia	2*
	001	Fantasia 2	2
090	000	Warm Pad	1*
	001	Thick Pad	2
	002	Horn Pad	2
	003	Rotary String	2
	004	Soft Pad	2
091	000	Polysynth	2*
	001	80's PolySyn	2
092	000	Space Voice	1*
	001	Heaven II	2
093	000	Bowed Glass	2*
094	000	Metal Pad	2*
	001	Tine Pad	2
	002	Panner Pad	2
095	000	Halo Pad	2*
096	000	Sweep Pad	1*
	001	Polar Pad	1
	008	Converge	1
	009	Shwimmer	2
	010	Celestial Pad	2
SYNTH SFX			
097	000	Ice Rain	2*
	001	Harmo Rain	2
	002	African Wood	2
	008	Clavi Pad	2

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Play near note C4 (Note Number 60).

PR	BN	INSTRUMENT	VOICE
098	000	Soundtrack	2*
	001	Ancestral	2
	002	Prologue	2
	008	Rave	2
099	000	Crystal	2*
	001	Syn Mallet	1*
	002	Soft Crystal	2
	003	Round Glock	2
	004	Loud Glock	2
	005	GlockenChime	2
	006	Clear Bells	2
	007	ChristmasBell	2
	008	Vibra Bells	2
	009	Digi Bells	2
	016	Choral Bells	2
	017	Air Bells	2
	018	Bell Harp	2
	019	Gamelimba	2
100	000	Atmosphere	2*
	001	Warm Atmos.	2
	002	Nylon Harp	2
	003	Harpvox	2
	004	Hollow Release	2
	005	Nylon+Rhodes	2
	006	Ambient Pad	2
101	000	Brightness	2*
102	000	Goblin	2*
	001	Goblinson	2
	002	50's Sci-Fi	2
103	000	Echo Drops	1*
	001	Echo Bell	2*
	002	Echo Pan	2*
	003	Echo Pan 2	2
	004	Big Panner	2
	005	Reso Panner	2
	006	Water Piano	2
104	000	Star Theme	2*
	001	Star Theme 2	2
ETHNIC			
105	000	Sitar	1*
	001	Sitar 2	2*
	002	Detune Sitar	2
	008	Tambra	1
	016	Tamboura	2
106	000	Banjo	1
	001	Muted Banjo	1
	008	Rabab	2
	016	Gopichant	2
	024	Oud	2
107	000	Shamisen	1*

PR	BN	INSTRUMENT	VOICE
	001	Tsugaru	2
108	000	Koto	1*
	008	Tasiho koto	1
	016	Kanoon	2
109	000	Kalimba	1
110	000	Bagpipe	1
111	000	Fiddle	1*
112	000	Shanai	1*
	001	Shanai 2	1
	008	Punji	1
	016	Hichiriki	2
PERCUSSION			
113	000	Tinkle Bell	1*
	008	Bonang	1
	009	Gender	1
	010	Gamelon Gong	1
	011	St. Gamelon	2
	016	RAMA Cymbal	1
114	000	Agogo	1
	008	Atarigane	1
115	000	Steel Drums	1*
116	000	Woodblock	1* **
	008	Castanets	1* **
117	000	Taiko	1* **
	008	Concert BD	1* **
118	000	Melodic Tom 1	1* **
	001	Real Tom	2 **
	008	Melodic Tom 2	1* **
	009	Rock Tom	2 **
119	000	Synth Drum	1* **
	008	808 Tom	2 **
	009	Electronic Perc	1* **
120	000	Reverse Cym.	1* **
	001	Reverse Cym2	1 **
	008	Rev. Snare 1	1 **
	009	Rev. Snare 2	1 **
	016	Rev. Kick 1	1 **
	017	Rev. Con. BD	1 **
	024	Rev. Tom 1	1 **
	025	Rev. Tom 2	1 **
SF			
121	000	Gt. Fret Noise	1*
	001	Gt. Cut Noise	1* **
	002	String Slap	1* **
	003	Gt. Cut Noise	1 **
	004	Dist. Cut Noiz	1 **
	005	Bass Slide	1 **
	006	Pick Scrape	1 **
122	000	Breath Noise	1*

PR	BNK	INSTRUMENT	VOICE
	001	Fl. Key Click	1* **
123	000	Seashore	1* **
	001	Rain	1* **
	002	Thunder	1* **
	003	Wind	1* **
	004	Stream	2* **
	005	Bubble	2* **
124	000	Bird	2* **
	001	Dog	1* **
	002	Horse Gallop	1* **
	003	Bird 2	1* **
	004	Kitty	1 **
	005	Growl	1 **
125	000	Telephone 1	1* **
	001	Telephone 2	1* **
	002	Door Creaking	1* **
	003	Door	1* **
	004	Scratch	1* **
	005	Wind Chimes	2* **
	007	Scratch 2	1 **
126	000	Helicopter	1* **
	001	Car Engine	1* **
	002	Car Stop	1* **
	003	Car Pass	1* **
	004	Car Crash	2* **
	005	Siren	1* **
	006	Train	1* **
	007	Jetplane	2* **
	008	Starship	2* **
	009	Burst Noise	2* **
127	000	Applause	2* **
	001	Laughing	1* **
	002	Sceaming	1* **
	003	Punch	1* **
	004	Heartbeat	1*
	005	Footsteps	1* **
	006	Applause 2	2 **
128	000	Gun Shot	1* **
	001	Machine Gun	1* **
	002	Lasergun	1* **
	003	Explosion	2* **

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PR-300 TONE MAP

PR	BN	INSTRUMENT	VOICE
PIANO			
001	000	Piano 1	1
	008	Piano 1w	1
	016	Piano 1d	1
002	000	Piano 2	1
	008	Piano 2w	1
003	000	Piano 3	1
	008	Piano 3w	1
004	000	Honky-tonk	2
	008	Honky-tonk w	2
005	000	E.Piano 1	1
	008	Detuned EP1	2
	016	E.Piano 1v	2
	024	60's E.Piano	1
006	000	E.Piano 2	1
	008	Detuned EP 2	2
	016	E.Piano 2v	2
007	000	Harpsichord	1
	008	Coupled Hps.	2
	016	Harpsi.w	1
	024	Harpsi.o	2
008	000	Clav.	1
CHROMATIC PERCUSSION			
009	000	Celesta	1
010	000	Glockenspiel	1
011	000	Music Box	1
012	000	Vibraphone	1
	008	Vib.w	1
013	000	Marimba	1
	008	Marimba w	1
014	000	Xylophone	1
015	000	Tubular-bell	1
	008	Church Bell	1
	009	Carillon	1
016	000	Santur	1
ORGAN			
017	000	Organ 1	1
	008	Detuned Org.1	2
	016	60's Organ 1	1
	032	Organ 4	2
018	000	Organ 2	1
	008	Detuned Org. 2	2
	032	Organ 5	2
019	000	Organ 3	2
020	000	Church Org. 1	1
	008	Church Org. 2	2
	016	Church Org. 3	2
021	000	Reed Organ	1
022	000	Accordion Fr	2

PR	BN	INSTRUMENT	VOICE
	008	Accordion I	2
023	000	Harmonica	1
024	000	Bandoneon	2
GUITAR			
025	000	Nylon-str. Gt	1
	008	Ukulele	1
	016	Nylon Gt.o	2
	032	Nylon Gt. 2	1
026	000	Steel-str. Gt.	1
	008	12-str. Gt	2
	016	Mandolin	1
027	000	Jazz Gt.	1
	008	Hawaiian Gt.	1
028	000	Clean Gt.	1
	008	Chorus Gt.	2
029	000	Muted Gt.	1
	008	Funk Gt.	1
	016	Funk Gt. 2	1
030	000	Overdrive Gt.	1
031	000	Dist. Gt.	1
	008	Feedback Gt.	2
032	000	Gt. Harmonix	1
	008	Gt. Feedback	1
BASS			
033	000	Acoustic Bs.	1
034	000	Fingered Bs.	1
035	000	Picked Bass	1
036	000	Fretless Bs.	1
037	000	Slap Bass 1	1
038	000	Slap Bass 2	1
039	000	Synth Bass 1	1
	001	Synth Bass101	1
	008	Synth Bass 3	1
040	000	Synth Bass 2	2
	008	Synth Bass 4	2
	016	Rubber Bass	2
STRINGS/ORCHESTRAL			
041	000	Violin	1
	008	Slow Violin	1
042	000	Viola	1
043	000	Cello	1
044	000	Contrabass	1
045	000	Tremolo Str.	1
046	000	Pizzicato	1
047	000	Harp	1
048	000	Timpani	1

PR	BNK	INSTRUMENT	VOICE
ENSEMBLE			
049	000	Strings	1
	008	Orchestra	2
050	000	Slow Strings	1
051	000	Syn. Strings 1	1
	008	Syn. Strings 3	2
052	000	Syn. Strings 2	2
053	000	Choir Aahs	1
	032	Choir Aahs 2	1
054	000	Voice Oohs	1
055	000	SynVox	1
056	000	Orchestra Hit	2
BRASS			
057	000	Trumpet	1
058	000	Trombone	1
	001	Tombone 2	2
059	000	Tuba	1
060	000	Muted Trumpet	1
061	000	French Horn	2
	001	Fr. Horn 2	2
062	000	Brass 1	1
	008	Brass 2	2
063	000	Synth Brass 1	2
	008	Synth Brass 3	2
	016	Analog Brass 1	2
064	000	Synth Brass 2	2
	008	Synth Brass 4	1
	016	Analog Brass 2	2
REED			
065	000	Soprano Sax	1
066	000	Alto Sax	1
067	000	Tenor Sax	1
068	000	Baritone Sax	1
069	000	Oboe	1
070	000	English Horn	1
071	000	Bassoon	1
072	000	Clarinet	1
PIP			
073	000	Piccolo	1
074	000	Flute	1
075	000	Recorder	1
076	000	Pan Flute	1
077	000	Bottle Blow	2
078	000	Shakuhachi	2
079	000	Whistle	1
080	000	Ocarina	1

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PR	BN	INSTRUMENT	VOICE
SYNTHLEAD			
081	000	Square Wave	2
	001	Square	1
	008	Sine Wave	1
082	000	Saw Wave	2
	001	Saw	1
	008	Doctor Solo	2
083	000	Syn. Calliope	2
084	000	Chiffer Lead	2
085	000	Charang	2
086	000	Solo Vox	2
087	000	5th Saw Wave	2
088	000	Bass & Lead	2
SYNTHPAD			
089	000	Fantasia	2
090	000	Warm Pad	1
091	000	Polysynth	2
092	000	Space Voice	1
093	000	Bowed Glass	2
094	000	Metal Pad	2
095	000	Halo Pad	2
096	000	Sweep Pad	1
SYNTHSFX			
097	000	Ice Rain	2
098	000	Soundtrack	2
099	000	Crystal	2
	001	Syn Mallet	1
100	000	Atmosphere	2
101	000	Brightness	2
102	000	Goblin	2
103	000	Echo Drops	1
	001	Echo Bell	2
	002	Echo Pan	2
104	000	Star Theme	2
ETHNIC			
105	000	Sitar	1
	001	Sitar 2	2
106	000	Banjo	1
107	000	Shamisen	1
108	000	Koto	1
	008	Tasiho koto	2
109	000	Kalimba	1
110	000	Bagpipe	1
111	000	Fiddle	1
112	000	Shanai	1
PERCUSSION			
113	000	Tinkle Bell	1
114	000	Agogo	1
115	000	Steel Drums	1
116	000	Woodblock	1 **
	008	Castanets	1 **
117	000	Taiko	1 **
	008	Concert BD	1 **
118	000	Melodic Tom 1	1 **
	008	Melodic Tom 2	1 **
119	000	Synth Drum	1 **
	008	808 Tom	1 **
	009	Electronic Perc	1 **
120	000	Reverse Cym.	1 **
SF			
121	000	Gt. Fret Noiz	1
	001	Gt. Cut Noise	1 **
	002	String Slap	1 **
122	000	Breath Noise	1
	001	Fl. Key Click	1 **
123	000	Seashore	1 **
	001	Rain	1 **
	002	Thunder	1 **
	003	Wind	1 **
	004	Stream	2 **
	005	Bubble	2 **
124	000	Bird	2 **
	001	Dog	1 **
	002	Horse Gallop	1 **
	003	Bird 2	1 **
125	000	Telephone 1	1 **
	001	Telephone 2	1 **
	002	Door Creaking	1 **
	003	Door	1 **
	004	Scratch	1 **
	005	Wind Chimes	2 **
126	000	Helicopter	1 **
	001	Car Engine	1 **
	002	Car Stop	1 **
	003	Car Pass	1 **
	004	Car Crash	2 **
	005	Siren	1 **
	006	Train	1 **
	007	Jetplane	2 **
	008	Starship	2 **
	009	Burst Noise	2 **
127	000	Applause	2 **
	001	Laughing	1 **
	002	Sceaming	1 **
	003	Punch	1 **
	004	Heartbeat	1
	005	Footsteps	1 **

PR	BNK	INSTRUMENT	VOICE
128	000	Gun Shot	1 **
	001	Machine Gun	1 **
	002	Lasergun	1 **
	003	Explosion	2 **

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Play near note C4 (Note Number 60).

CM-64 (PR-300 SUBSET)

PR	BN	INSTRUMENT	VOICE
001	126	Piano 2	1
002	126	Piano 2	1
003	126	Piano 2	1
004	126	Honky-tonk	2
005	126	Piano 1	1
006	126	Piano 2	1
007	126	Piano 2	1
008	126	E. Piano 1	1
009	126	Detuned EP 1	2
010	126	E. Piano 2	1
011	126	Steel Gt.	1
012	126	Steel Gt.	1
013	126	12-str. Gt.	2
014	126	Funk Gt.	1
015	126	Muted Gt.	1
016	126	Slap Bass 1	1
017	126	Slap Bass 1	1
018	126	Slap Bass 1	1
019	126	Slap Bass 1	1
020	126	Slap Bass 2	1
021	126	Slap Bass 2	1
022	126	Slap Bass 2	1
023	126	Slap Bass 2	1
024	126	Fingered Bs	1
025	126	Fingered Bs	1
026	126	Picked Bass	1
027	126	Picked Bass	1
028	126	Fretless Bs	1
029	126	Acoustic Bs	1
030	126	Choir Aahs	1
031	126	Choir Aahs	1
032	126	Choir Aahs	1
033	126	Choir Aahs	1
034	126	SlowStrings	1
035	126	Strings	1
036	126	SynStrings 3	2
037	126	SynStrings 3	2
038	126	Organ 1	1
039	126	Organ 1	1
040	126	Organ 1	1
041	126	Organ 2	1
042	126	Organ 1	1
043	126	Organ 1	1
044	126	Organ 2	1
045	126	Organ 2	1
046	126	Organ 2	1
047	126	Trumpet	1
048	126	Trumpet	1
049	126	Trombone	1
050	126	Trombone	1
051	126	Trombone	1
052	126	Trombone	1
053	126	Trombone	1
054	126	Trombone	1
055	126	Alto Sax	1
056	126	Tenor Sax	1
057	126	BaritoneSax	1
058	126	Alto Sax	1
059	126	Brass 1	1
060	126	Brass 1	1
061	126	Brass 2	2
062	126	Brass 2	2
063	126	Brass 1	1
064	126	Orchest.Hit	2

MT-32 (PR-300 SUBSET)

PR	BN	INSTRUMENT	VOICE
001	127	Acou Piano 1	1
002	127	Acou Piano 2	1
003	127	Acou Piano 3	1
004	127	Elec Piano 1	1
005	127	Elec Piano 2	1
006	127	Elec Piano 3	1
007	127	Elec Piano 4	1
008	127	Honky-tonk	2
009	127	Elec Org 1	1
010	127	Elec Org 2	2
011	127	Elec Org 3	1
012	127	Elec Org 4	1
013	127	Pipe Org 1	2
014	127	Pipe Org 2	2
015	127	Pipe Org 3	2
016	127	Accordion	2
017	127	Harpsi 1	1
018	127	Harpsi 2	2
019	127	Harpsi 3	1
020	127	Clavi 1	1
021	127	Clavi 2	1
022	127	Clavi 3	1
023	127	Celesta 1	1
024	127	Celesta 2	1
025	127	Syn Brass 1	2
026	127	Syn Brass 2	2
027	127	Syn Brass 3	2
028	127	Syn Brass 4	2
029	127	Syn Bass 1	1
030	127	Syn Bass 2	2
031	127	Syn Bass 3	2
032	127	Syn Bass 4	1
033	127	Fantasy	2
034	127	Harmo Pan	2
035	127	Chorale	1
036	127	Glasses	2
037	127	Soundtrack	2
038	127	Atmosphere	2
039	127	Warm Bell	2
040	127	Funny Vox	1
041	127	Echo Bell	2
042	127	Ice Rain	2
043	127	Oboe 2001	2
044	127	Echo Pan	2
045	127	Doctor Solo	2
046	127	School Daze	1
047	127	Bellsinger	1
048	127	Square Wave	2
049	127	Str Sect 1	1
050	127	Str Sect 2	1
051	127	Str Sect 3	1
052	127	Pizzicato	1
053	127	Violin 1	1
054	127	Violin 2	1
055	127	Cello 1	1
056	127	Cello 2	1
057	127	Contrabass	1
058	127	Harp 1	1
059	127	Harp 2	1
060	127	Guitar 1	1
061	127	Guitar 2	1
062	127	Elec Gtr. 1	1
063	127	Elec Gtr. 2	1
064	126	Sitar	2

PR	BNK	INSTRUMENT	VOICE	
065	127	Acou Bass 1	1	
066	127	Acou Bass 2	1	
067	127	Elec Bass 1	1	
068	127	Elec Bass 2	1	
069	127	Slap Bass 1	1	
070	127	Slap Bass 2	1	
071	127	Fretless 1	1	
072	127	Fretless 2	1	
073	127	Flute 1	1	
074	127	Flute 2	1	
075	127	Piccolo 1	1	
076	127	Piccolo 2	2	
077	127	Recorder	1	
078	127	Pan Pipes	1	
079	127	Sax 1	1	
080	127	Sax 2	1	
081	127	Sax 3	1	
082	127	Sax 4	1	
083	127	Clarinet 1	1	
084	127	Clarinet 2	1	
085	127	Oboe	1	
086	127	Engl Horn	1	
087	127	Bassoon	1	
088	127	Harmonica	1	
089	127	Trumpet 1	1	
090	127	Trumpet 2	1	
091	127	Trombone 1	2	
092	127	Trombone 2	2	
093	127	Fr Horn	2	
094	127	Fr Horn 2	2	
095	127	Tuba	1	
096	127	Brs Sect 1	1	
097	127	Brs Sect 2	2	
098	127	Vibe 1	1	
099	127	Vibe 2	1	
100	127	Syn Mallet	1	
101	127	Windbell	2	
102	127	Glock	1	
103	127	Tube Bell	1	
104	127	Xylophone	1	
105	127	Marimba	1	
106	127	Koto	1	
107	127	Sho	2	
108	127	Shakuhachi	2	
109	127	Whistle 1	2	
110	127	Whistle 2	1	
111	127	Bottleblow	2	
112	127	Breathpipe	1	
113	127	Timpani	1	
114	127	Melodic Tom	1	
115	127	Deep Snare	1	**
116	127	Elec Perc 1	1	**
117	127	Elec Perc 2	1	**
118	127	Taiko	1	**
119	127	Taiko Rim	1	
120	127	Cymbal	1	
121	127	Castanets	1	**
122	127	Triangle	1	**
123	127	Orche Hit	1	
124	127	Telephone	1	**
125	127	Bird Tweet	1	**
126	127	OneNote Jam	1	**
127	127	Water Bell	2	
128	127	Jungle Tune	2	

CLASSIC ORGAN TONE MAP

PR	BN	INSTRUMENT	VOICE
001	000	Gedackt	1
002	000	Flutes 8 & 4	1
003	000	Fndations mf	2
004	000	Flutes 8 & 2	2
005	000	Princ 8 & 2	2
006	000	Princ 8 4 2	2
007	000	Princ Chorus	2
008	000	Full Great	1
009	000	Crommorne 8	1
010	000	Hautbois 8	1
011	000	Trompette 8	1
012	000	Flt8 4 Nasat	1
013	000	Flute Cornet	1
014	000	Trumpets 8&4	1
015	000	Reed Chorus	2
016	000	Flt8 4 Quint	1
017	000	Viola8 Flt4	2
018	000	Str Celeste	2
019	000	Str Cel Flt4	3
020	000	Str&Flt Cel	3
021	000	SW Fndations	2
022	000	Swell Chorus	3
023	000	SW Chorus ff	3
024	000	Full Swell	3
025	000	Soft Bass 1	1
026	000	Soft Bass 2	1
027	000	Pedal mf	1
028	000	Pedal f	2
029	000	Ped Chorus f	2
030	000	Pedal ff1	1
031	000	Pedal ff2	3
032	000	Full Pedal	3
033	000	FluteCeleste	2
034	000	Bourdon 32	1
035	000	Hmndorg bas1	2
036	000	Hmndorg bas2	2
037*	000	Principal 8	1
038*	000	Tibia 8	1
039*	000	Cymbale	1
040*	000	Reeds 32, 16, 8	2
041*	000	Festival Tpt	1
042*	000	Theatre Mix	1
043*	000	RSS Strings	1

PRG : Program Change number (PC#)
BNK : Bank number (Variation number) (CC00#)
INSTRUMENT : Instrument name
VOICES : Number of voices used
* : Available on the W-5000 only if upgrade kit P/N 8003-146 is installed.

SYNTH DRUM SETS

NOTE	STANDARD SET 1 (PC 1)	STANDARD SET 2 (PC 2)	ROOM SET (PC 9)	POWER SET (PC 17)	ELECTRONIC SET (PC 25)
28	Slap	<—	<—	<—	<—
29	Scratch Push [EXC7]	<—	<—	<—	Scratch Push 2 [EXC7]
30	Scratch Pull [EXC7]	<—	<—	<—	Scratch Pull 2 [EXC7]
31	Sticks	<—	<—	<—	<—
32	Square Click	<—	<—	<—	<—
33	Metronome Click	<—	<—	<—	<—
34	Metronome Bell	<—	<—	<—	<—
35	Standard 1 Kick 2	Standard 2 Kick 2	Room Kick 2	Power Kick 2	Electric Kick 2
36 (C2)	Standard 1 Kick 1	Standard 2 Kick 1	Room Kick 1	Power Kick 1	Electric Kick 1
37	Side Stick	<—	<—	<—	<—
38	Standard 1 Snare 1	Standard 2 Snare 1	Room Snare 1	Power Snare 1	Electric Snare 1
39	Hand Clap	<—	<—	<—	<—
40	Standard 1 Snare 2	Standard 2 Snare 2	Room Snare 2	Power Snare 2	Electric Snare 2
41	Low Tom 2*	<—	Room Low Tom 2*	Power Low Tom 2*	Electric Low Tom 2*
42	Closed Hi-hat 1 [ECX1]	Closed Hi-hat 2 [EXC1]	Closed Hi-hat 3 [EXC1]	Closed Hi-hat 3 [EXC1]	Closed Hi-hat 2 [EXC1]
43	Low Tom 1*	<—	Room Low Tom 1*	Power Low Tom 1*	Electric Low Tom 1*
44	Pedal Hi-hat [EXC1]	<—	<—	<—	<—
45	Mid Tom 2*	<—	Room Mid Tom 2*	Power Mid Tom 2*	Electric Mid Tom 2*
46	Open Hi-hat 1 [EXC1]	Open Hi-hat 2 [EXC1]	Open Hi-hat 3 [EXC1]	Open Hi-hat 3 [EXC1]	Open Hi-hat 2 [EXC1]
47	Mid Tom 1*	<—	Room Mid Tom 1*	Power Mid Tom 1*	Electric Mid Tom 1*
48 (C3)	High Tom 2*	<—	Room Hi Tom 2*	Power Hi Tom 2*	Electric High Tom 2*
49	Crash Cymbal 1	<—	<—	<—	<—
50	High Tom 1*	<—	Room Hi Tom 1*	Power Hi Tom*	Electric Hi Tom 1*
51	Ride Cymbal 1	<—	<—	<—	<—
52	Chinese Cymbal	<—	<—	<—	Reverse Cymbal
53	Ride Bell	<—	<—	<—	<—
54	Tambourine	<—	<—	<—	<—
55	Splash Cymbal	<—	<—	<—	<—
56	Cowbell	<—	<—	<—	<—
57	Crash Cymbal 2	<—	<—	<—	<—
58	Vibra-slap	<—	<—	<—	<—
59	Ride Cymbal 2	<—	<—	<—	<—
60 (C4)	High Bongo	<—	<—	<—	<—
61	Low Bongo	<—	<—	<—	<—
62	Mute High Conga	<—	<—	<—	<—
63	Open High Conga	<—	<—	<—	<—
64	Low Conga	<—	<—	<—	<—
65	High Timbale	<—	<—	<—	<—
66	Low Timbale	<—	<—	<—	<—
67	High Agogo	<—	<—	<—	<—
68	Low Agogo	<—	<—	<—	<—
69	Cabasa	<—	<—	<—	<—
70	Maracas	<—	<—	<—	<—
71	Short Hi Whistle [EXC2]	<—	<—	<—	<—
72 (C5)	Long Low Whistle [EXC2]	<—	<—	<—	<—
73	Short Guiro [EXC3]	<—	<—	<—	<—
74	Long Guiro [EXC3]	<—	<—	<—	<—
75	Claves	<—	<—	<—	<—
76	High Wood Block	<—	<—	<—	<—
77	Low Wood Block	<—	<—	<—	<—
78	Mute Cuica [EXC4]	<—	<—	<—	<—
79	Open Cuica [EXC4]	<—	<—	<—	<—
80	Mute Triangle [EXC5]	<—	<—	<—	<—
81	Open Triangle [EXC5]	<—	<—	<—	<—
82	Shaker	<—	<—	<—	<—
83	Jingle Bell	<—	<—	<—	<—
84 (C6)	Bell Tree	Bar Chimes	<—	<—	<—
85	Castanets	<—	<—	<—	<—
86	Mute Surdo [EXC6]	<—	<—	<—	<—
87	Open Surdo [EXC6]	<—	<—	<—	<—
88	• • •	• • •	• • •	• • •	• • •
89	• • •	• • •	• • •	• • •	• • •
90	• • •	• • •	• • •	• • •	• • •
91	• • •	• • •	• • •	• • •	• • •
92	• • •	• • •	• • •	• • •	• • •
93	• • •	• • •	• • •	• • •	• • •
94	• • •	• • •	• • •	• • •	• • •
95	• • •	• • •	• • •	• • •	• • •
96 (C7)	• • •	• • •	• • •	• • •	• • •
97	• • •	• • •	• • •	• • •	• • •
98	• • •	• • •	• • •	• • •	• • •
99	• • •	• • •	• • •	• • •	• • •
100	• • •	• • •	• • •	• • •	• • •
101	• • •	• • •	• • •	• • •	• • •
102	• • •	• • •	• • •	• • •	• • •
103	• • •	• • •	• • •	• • •	• • •

[EXE] : Percussion sounds with the same EXC number cannot be played simultaneously

* : Tones which use two voices

<— : Same sound as in STANDARD SET 1

• • • : No sound

PR-300 DRUM SETS

NOTE	TR-808/909 SET (PC 26)	DANCE SET (PC 27)	JAZZ SET (PC33)	BRUSH SET (PC 41)	ORCHESTRAL SET (PC 49)
28	<—	<—	<—	<—	Pedal Hi-hat [EXC1]
29	Scratch Push 2 [EXC7]	Scratch Push 2 [EXC7]	<—	<—	Open Hi-hat 2 [EXC1]
30	Scratch Pull 2 [EXC7]	Scratch Pull 2 [EXC7]	<—	<—	Ride Cymbal 1
31	<—	<—	<—	<—	<—
32	<—	<—	<—	<—	<—
33	<—	<—	<—	<—	<—
34	<—	<—	<—	<—	<—
35	909 Bass Drum	Dance Kick	Jazz Kick 2	Jazz Kick 2	Jazz Kick 1
36 (C2)	808 Bass Drum	Electric Kick 2	Jazz Kick 1	Jazz Kick 1	Concert BD 1
37	808 Rim Shot	<—	<—	<—	<—
38	808 Snare 1	Dance Snare 1	Jazz Snare 1	Brush Tap 1	Concert SD
39	<—	<—	Hand Clap 2	Brush Slap 1	Castanets
40	909 Snare 1	Dance Snare 2	Jazz Snare 2	Brush Swirl 1	Concert SD
41	808 Low Tom 2*	Electric Low Tom 2*	<—	Brush Low Tom 2*	Timpani F
42	808 Closed Hi-hat [ECX1]	CR-78 Closed Hi-hat [EXC1]	Closed Hi-hat 2 [EXC1]	Brush Closed Hi-hat [EXC1]	Timpani F#
43	808 Low Tom 1*	Electric Low Tom 1*	<—	Brush Low Tom 1*	Timpani G
44	808 Closed Hi-hat [EXC1]	808 Closed Hi-hat [EXC1]	<—	<—	Timpani G#
45	808 Mid Tom 2*	Electric Mid Tom 2*	<—	Brush Mid Tom 2*	Timpani A
46	808 Open Hi-hat [EXC1]	CR-78 Open Hi-hat [EXC1]	Open Hi-hat 2 [EXC1]	Brush Open Hi-hat [EXC1]	Timpani A#
47	808 Mid Tom 1*	Electric Mid Tom 1*	<—	Brush Mid Tom 1*	Timpani B
48 (C3)	808 High Tom 2*	Electric High Tom 2*	<—	Brush Hi Tom 2*	Timpani C
49	808 Cymbal	<—	<—	Brush Crash Cymbal	Timpani C#
50	808 High Tom 1	Electric High Tom 1*	<—	Brush Hi Tom 1*	Timpani D
51	<—	<—	<—	Brush Ride Cymbal	Timpani D#
52	<—	Reverse Cymbal	<—	<—	Timpani E
53	<—	<—	<—	Brush Ride Bell	Timpani F
54	<—	<—	<—	<—	<—
55	<—	<—	<—	<—	<—
56	808 Cowbell	<—	<—	<—	<—
57	<—	<—	<—	<—	Concert Cymbal 2
58	<—	<—	<—	<—	<—
59	<—	<—	<—	<—	Concert Cymbal 1
60 (C4)	<—	<—	<—	<—	<—
61	<—	<—	<—	<—	<—
62	808 High Conga	<—	<—	<—	<—
63	808 Mid Conga	<—	<—	<—	<—
64	808 Low Conga	<—	<—	<—	<—
65	<—	<—	<—	<—	<—
66	<—	<—	<—	<—	<—
67	<—	<—	<—	<—	<—
68	<—	<—	<—	<—	<—
69	<—	<—	<—	<—	<—
70	808 Maracas	<—	<—	<—	<—
71	<—	<—	<—	<—	<—
72 (C5)	<—	<—	<—	<—	<—
73	<—	<—	<—	<—	<—
74	<—	<—	<—	<—	<—
75	808 Claves	<—	<—	<—	<—
76	<—	<—	<—	<—	<—
77	<—	<—	<—	<—	<—
78	<—	High Hoo [EXC4]	<—	<—	<—
79	<—	Low Hoo [EXC4]	<—	<—	<—
80	<—	Electric Mute Triangle [EXC5]	<—	<—	<—
81	<—	Electric Open Triangle [EXC5]	<—	<—	<—
82	<—	<—	<—	<—	<—
83	<—	<—	<—	<—	<—
84 (C6)	<—	<—	<—	<—	<—
85	<—	<—	<—	<—	<—
86	<—	<—	<—	<—	<—
87	<—	<—	<—	<—	<—
88	• • •	• • •	• • •	• • •	Applause*
89	• • •	• • •	• • •	• • •	• • •
90	• • •	• • •	• • •	• • •	• • •
91	• • •	• • •	• • •	• • •	• • •
92	• • •	• • •	• • •	• • •	• • •
93	• • •	• • •	• • •	• • •	• • •
94	• • •	• • •	• • •	• • •	• • •
95	• • •	• • •	• • •	• • •	• • •
96 (C7)	• • •	• • •	• • •	• • •	• • •
97	• • •	• • •	• • •	• • •	• • •
98	• • •	• • •	• • •	• • •	• • •
99	• • •	• • •	• • •	• • •	• • •
100	• • •	• • •	• • •	• • •	• • •
101	• • •	• • •	• • •	• • •	• • •
102	• • •	• • •	• • •	• • •	• • •
103	• • •	• • •	• • •	• • •	• • •

[EXE] : Percussion sounds with the same EXC number cannot be played simultaneously

* : Tones which use two voices

<— : Same sound as in STANDARD SET 1

• • • : No sound

NOTE	ETHNIC SET (PC 50)	KICK & SNARE SET (PC 51)	SFX SET (PC 57)	RHYTHM FX SET (PC 58_
28	Crash Cymbal 1	• • •	<—	• • •
29	Snare Roll	• • •	<—	• • •
30	Concert Snare Drum	• • •	<—	• • •
31	Concert Cymbal	• • •	Scratch Push 2 [EXC1]	• • •
32	Concert BD 1	• • •	Scratch Pull 2 [EXC1]	• • •
33	Jingle Bell	• • •	Cutting Noise 2 Up	• • •
34	Bell Tree	• • •	Cutting Noise 2 Down	• • •
35	Bar Chimes	• • •	Distortion Gt. Cut Noise Up	• • •
36 (C2)	Wadaiko*	• • •	Distortion Gt. Cut Noise Down	Reverse Kick 1
37	Wadaiko Rim*	• • •	Bass Slide	Reverse Concert BD 1
38	Shime Taiko	• • •	Pick Scrape	Reverse Power Kick 1
39	Atarigane	• • •	High Q	Reverse Electric Kick 1
40	Hyoushigi	Standard 1 Kick 1	Slap	Reverse Snare 1
41	Ohkawa	Standard 1 Kick 2	Scratch Push [EXC7]	Reverse Snare 2
42	High Kotsuzumi	Standard 2 Kick 1	Scratch Pull [EXC7]	Reverse Standard Set 1 Snare
43	Low Kotsuzumi	Standard 2 Kick 2	Sticks	Reverse Tight Snare
44	Ban Gu	Kick 1	Square Click	Reverse Dance Snare
45	Big Gong	Kick 2	Metronome Click	Reverse 808 Snare
46	Small Gong	Soft Kick	Metronome Bell	Reverse Tom 1
47	Bend Gong	Jazz Kick 1	Guitar Fret Noise	Reverse Tom 2
48 (C3)	Thai Gong	Jazz Kick 2	Guitar Cutting Noise Up	Reverse Sticks
49	Rama Cymbal	Concert BD	Guitar Cutting noise Down	Reverse Slap
50	Gamelan Gong	Room Kick 1	String Slap; Double Bass	Reverse Cymbal 1
51	Udo Short [EXC1]	Room Kick 2	Flute Key Click	Reverse Cymbal 2
52	Udo Long [EXC1]	Power Kick 1	Laughing	Reverse Open Hi-hat
53	Udo Slap	Power Kick 2	Scream	Reverse Ride Cymbal
54	Bendir	Electric Kick 2	Punch	Reverse CR-78 Open Hi-hat
55	Req Dum	Electric Kick 1*	Heartbeat	Reverse Closed Hi-hat
56	Req Tik	Electric Kick	Footsteps 1	Reverse Gong
57	Tabla 'Te'	808 Bass Drum	Footsteps 2	Reverse Bell Tree
58	Tabla 'Na'	909 Bass Drum	Applause*	Reverse Guiro
59	Tabla 'Tun'	Dance Kick	Door Creaking	Reverse Bendir
60 (C4)	Tabla 'Ge'	Standard 1 Snare 1	Door	Reverse Gun Shot
61	Tabla 'Ge Hi'	Standard 1 Snare 2	Scratch	Reverse Scratch
62	Talking Drum*	Standard 2 Snare 1	Wind Chimes*	Reverse Laser
63	Bend Talking Drum*	Standard 2 Snare 2	Car Engine	Key Click
64	Caxixi	Tight Snare	Car Stop	Tekno Thip
65	Djembe	Concert Snare	Car Pass	Pop Drop
66	Djembe Rim	Jazz Snare 1	Car Crash*	Woody Slap
67	Timbales Low	Jazz Snare 2	Siren	Distortion Kick*
68	Timables 'Paila'	Room Snare 1	Train	Syn. Drop
69	Timbales High	Room Snare 2	Jetplane*	Reverse High Q
70	Cowbell	Power Snare 1	Helicopter	Pipe
71	Hi Bongo	Power Snare 2	Starship*	Ice Block
72 (C5)	Low Bongo	Gated Snare	Gun Shot	Digital Tambourine*
73	Mute Hi Conga	Dance Snare 1	Machine Gun	Alias
74	Open Hi Conga	Dance Snare 2	Laser Gun	Modulated Bell
75	Mute Low Conga	Disco Snare	Explosion*	Spark
76	Conga Slap	Electric Snare 2	Dog	Metallic Percussion
77	Open Low Conga	House Snare*	Horse Gallop	Velocity Noise FX
78	Conga Slide*	Electric Snare 1	Birds*	Stereo Noise Clap*
79	Mute Pandiero	Electric Snare 3*	Rain	Swish
80	Open Pandiero	808 Snare 1	Thunder	Slappy*
81	Open Surdo [EXC2]	808 Snare 2*	Wind	Voice 'Ou'
82	Mute Surdo [EXC2]	909 Snare 1	Seashore	Voice 'Au'
83	Tamborim	909 Snare 2*	Stream*	Hoo
84 (C6)	High Agogo	Brush Tap 1	Bubble*	Tape Stop 1*
85	Low Agogo	Brush Tap 2	Kitty	Tape Stop 2*
86	Shaker	Brush Slap 1	Bird 2	Missile*
87	High Whistle [EXC3]	Brush Slap 2	Growl	Space Bird
88	Low Whistle [EXC3]	Brush Slap 3	Applause 2*	Flying Monster
89	Mute Cuica [EXC4]	Brush Swirl 1	Telephone 1	• • •
90	Open Cuica [EXC4]	Brush Swirl 2	Telephone 2	• • •
91	Mute Triangle [EXC5]	Brush Long Swirl	• • •	• • •
92	Open Triangle [EXC5]	• • •	• • •	• • •
93	Short Guiro [EXC6]	• • •	• • •	• • •
94	Long Guiro [EXC6]	• • •	• • •	• • •
95	Cabasa Up	• • •	• • •	• • •
96 (C7)	Cabasa Down	• • •	• • •	• • •
97	Claves	• • •	• • •	• • •
98	High Wood Block	• • •	• • •	• • •
99	Low Wood Block	• • •	• • •	• • •
100	• • •	• • •	• • •	• • •
101	• • •	• • •	• • •	• • •
102	• • •	• • •	• • •	• • •
103	• • •	• • •	• • •	• • •

[EXE] : Percussion sounds with the same EXC number cannot be played simultaneously

* : Tones which use two voices

<— : Same sound as in STANDARD SET 1

• • • : No sound

NOTE	STANDARD SET 1 (PC 1)	ROOM SET 2 (PC 9)	POWER SET (PC 17)	ELECTRONIC SET (PC 25)	TR-808 SET (PC 26)
28	Slap	<—	<—	<—	<—

29	Scratch Push	<—	<—	<—	<—
30	Scratch Pull	<—	<—	<—	<—
31	Sticks	<—	<—	<—	<—
32	Square Click	<—	<—	<—	<—
33	Metronome Click	<—	<—	<—	<—
34	Metronome Bell	<—	<—	<—	<—
35	Kick Drum 2	<—	<—	<—	<—
36 (C2)	Kick Drum 1	<—	MONDO Kick	Elec BD	808 Bass Drum
37	Side Stick	<—	<—	<—	808 Rim Shot
38	Snare Drum 1	<—	Gated SD	Elec SD	808 Snare Drum
39	Hand Clap	<—	<—	<—	<—
40	Snare Drum 2	<—	<—	Gated SD	<—
41	Low Tom 2	Room Low Tom 2	Room Low Tom 2	Elec Low Tom 2	808 Low Tom 2
42	Closed Hi-hat 1 [ECX1]	<—	<—	<—	808 CHH [EXC1]
43	Low Tom 1	Room Low Tom 1	Room Low Tom 1	Elec Low Tom 1	808 Low Tom 1
44	Pedal Hi-hat [EXC1]	<—	<—	<—	808 CHH [EXC1]
45	Mid Tom 2	Room Mid Tom 2	Room Mid Tom 2	Elec Mid Tom 2	808 Mid Tom 2
46	Open Hi-hat 1 [EXC1]	<—	<—	<—	808 OHH [EXC1]
47	Mid Tom 1	Room Mid Tom 1	Room Mid Tom 1	Elec Mid Tom 1	808 Mid Tom 1
48 (C3)	High Tom 2	Room Hi Tom 2	Room Hi Tom 2	Elec Hi Tom 2	808 Hi Tom 2
49	Crash Cymbal 1	<—	<—	<—	808 Cymbal
50	High Tom 1	Room Hi Tom 1	Room Hi Tom 1	Elec Hi Tom 1	808 Hi Tom 1
51	Ride Cymbal 1	<—	<—	<—	<—
52	Chinese Cymbal	<—	<—	<—	<—
53	Ride Bell	<—	<—	<—	<—
54	Tambourine	<—	<—	<—	<—
55	Splash Cymbal	<—	<—	<—	<—
56	Cowbell	<—	<—	<—	808 Cowbell
57	Crash Cymbal 2	<—	<—	<—	<—
58	Vibra-slap	<—	<—	<—	<—
59	Ride Cymbal 2	<—	<—	<—	<—
60 (C4)	High Bongo	<—	<—	<—	<—
61	Low Bongo	<—	<—	<—	<—
62	Mute High Conga	<—	<—	<—	808 High Conga
63	Open High Conga	<—	<—	<—	808 Mid Conga
64	Low Conga	<—	<—	<—	808 Low Conga
65	High Timbale	<—	<—	<—	<—
66	Low Timbale	<—	<—	<—	<—
67	High Agogo	<—	<—	<—	<—
68	Low Agogo	<—	<—	<—	<—
69	Cabasa	<—	<—	<—	<—
70	Maracas	<—	<—	<—	808 Maracas
71	Short Hi Whistle [EXC2]	<—	<—	<—	<—
72 (C5)	Long Low Whistle [EXC2]	<—	<—	<—	<—
73	Short Guiro	<—	<—	<—	<—
74	Long Guiro	<—	<—	<—	<—
75	Claves	<—	<—	<—	808 Claves
76	High Wood Block	<—	<—	<—	<—
77	Low Wood Block	<—	<—	<—	<—
78	Mute Cuica [EXC4]	<—	<—	<—	<—
79	Open Cuica [EXC4]	<—	<—	<—	<—
80	Mute Triangle [EXC5]	<—	<—	<—	<—
81	Open Triangle [EXC5]	<—	<—	<—	<—
82	Shaker	<—	<—	<—	<—
83	Jingle Bell	<—	<—	<—	<—
84 (C6)	Bell Tree	<—	<—	<—	<—
85	Castanets	<—	<—	<—	<—
86	Mute Surdo [EXC6]	<—	<—	<—	<—
87	Open Surdo [EXC6]	<—	<—	<—	<—
88	• • •	• • •	• • •	• • •	• • •
89	• • •	• • •	• • •	• • •	• • •
90	• • •	• • •	• • •	• • •	• • •
91	• • •	• • •	• • •	• • •	• • •
92	• • •	• • •	• • •	• • •	• • •
93	• • •	• • •	• • •	• • •	• • •
94	• • •	• • •	• • •	• • •	• • •
95	• • •	• • •	• • •	• • •	• • •
96 (C7)	• • •	• • •	• • •	• • •	• • •
97	• • •	• • •	• • •	• • •	• • •
98	• • •	• • •	• • •	• • •	• • •
99	• • •	• • •	• • •	• • •	• • •
100	• • •	• • •	• • •	• • •	• • •
101	• • •	• • •	• • •	• • •	• • •
102	• • •	• • •	• • •	• • •	• • •
103	• • •	• • •	• • •	• • •	• • •

[EXE] : Percussion sounds with the same EXC number cannot be played simultaneously

* : Tones which use two voices

<— : Same sound as in STANDARD SET 1

• • • : No sound

NOTE	JAZZ SET (PC 33)	BRUSH SET (PC 41)	ORCHESTRA SET (PC 49)	SFX SET (PC 57)	CM64/32L (PC 128)
28	<—	<—	Pedal Hi-hat [EXC1]	• • •	<—
29	<—	<—	Open Hi-hat [EXC1]	• • •	<—
30	<—	<—	RideCymbal 1	• • •	<—
31	<—	<—	<—	• • •	<—

32	<—	<—	<—	• • •	<—
33	<—	<—	<—	• • •	<—
34	<—	<—	<—	• • •	<—
35	Jazz BD 2	Jazz BD 2	Concert BD 2	• • •	CM Kick Drum
36 (C2)	Jazz BD 1	Jazz BD 1	Concert BD 1	• • •	CM Kick Drum
37	<—	<—	<—	• • •	CM Rim Shot
38	<—	Brush Tap	Concert SD	• • •	CM Snare Drum
39	<—	Brush Slap	Castanets	High Q	CM Hand Clap
40	<—	Brush Swirl	Concert SD	Slap	CM Electronic SD
41	<—	<—	Timpani F	Scratch Push [EXC7]	CM Acoustic L Tom
42	<—	<—	Timpani F#	Scratch Pull [EXC7]	CM CHH [EXC1]
43	<—	<—	Timpani G	Sticks	CM Acoustic L Tom
44	<—	<—	Timpani G#	Square Click	CM OHH 2
45	<—	<—	Timpani A	Metronome Click	CM Acoustic M Tom
46	<—	<—	Timpani A#	Metronome Bell	CM OHH 1 [EXC2]
47	<—	<—	Timpani B	Guitar Fret Noise	CM M. Ac M Tom
48 (C3)	<—	<—	Timpani C	Guitar Cut Noise/Up	CM Acoustic H Tom
49	<—	<—	Timpani C#	Guitar Cut Noise/Dn	CM Crash Cymbal
50	<—	<—	Timpani D	String Slap/Double Bass	CM Acoustic H Tom
51	<—	<—	Timpani D#	Flute key Click	CM Ride Cymbal
52	<—	<—	Timpani E	Laughing	• • •
53	<—	<—	Timpani F	Scream	• • •
54	<—	<—	<—	Punch	CM Tambourine
55	<—	<—	<—	Heartbeat	• • •
56	<—	<—	<—	Footsteps 1	CM Cowbell
57	<—	<—	Concert Cymbal 2	Footsteps 2	• • •
58	<—	<—	<—	Applause*	• • •
59	<—	<—	Concert Cymbal 1	Door Creaking	• • •
60 (C4)	<—	<—	<—	Door	CM High Bongo
61	<—	<—	<—	Scratch	CM Low Bongo
62	<—	<—	<—	Wind Chimes*	CM Mute High Conga
63	<—	<—	<—	Car Engine	CM High Conga
64	<—	<—	<—	Car Stop	CM Low Conga
65	<—	<—	<—	Car Pass	CM High Timbale
66	<—	<—	<—	Car Crash*	CM Low Timbale
67	<—	<—	<—	Siren	CM High Agogo
68	<—	<—	<—	Train	CM Low Agogo
69	<—	<—	<—	Jetplane	CM Cabasa
70	<—	<—	<—	Helicopter	CM Maracas
71	<—	<—	<—	Starship*	CM Short Whistle
72 (C5)	<—	<—	<—	Gun Shot	CM Long Whistle
73	<—	<—	<—	Machine Gun	CM Vibra Slap
74	<—	<—	<—	Lasergun	• • •
75	<—	<—	<—	Explosion*	CM Claves
76	<—	<—	<—	Dog	Laughing
77	<—	<—	<—	Horse Gallop	Scream
78	<—	<—	<—	Birds*	Punch
79	<—	<—	<—	Rain*	Heartbeat
80	<—	<—	<—	Thunder	Footsteps 1
81	<—	<—	<—	Wind	Footsteps 2
82	<—	<—	<—	Seashore	Applause*
83	<—	<—	<—	Stream*	Creaking
84 (C6)	<—	<—	<—	Bubble*	Door
85	<—	<—	<—	• • •	Scratch
86	<—	<—	<—	• • •	Wind Chimes*
87	<—	<—	<—	• • •	Car Engine
88	• • •	• • •	Applause*	• • •	Car Stop
89	• • •	• • •	• • •	• • •	Car Pass
90	• • •	• • •	• • •	• • •	Car Crash*
91	• • •	• • •	• • •	• • •	Siren
92	• • •	• • •	• • •	• • •	Train
93	• • •	• • •	• • •	• • •	Jetplane*
94	• • •	• • •	• • •	• • •	Helicopter
95	• • •	• • •	• • •	• • •	Starship*
96 (C7)	• • •	• • •	• • •	• • •	Gun Shot
97	• • •	• • •	• • •	• • •	Machine Gun
98	• • •	• • •	• • •	• • •	Lasergun
99	• • •	• • •	• • •	• • •	Explosion*
100	• • •	• • •	• • •	• • •	Dog
101	• • •	• • •	• • •	• • •	Horse Gallop
102	• • •	• • •	• • •	• • •	Birds*
103	• • •	• • •	• • •	• • •	Rain*

[EXE] : Percussion sounds with the same EXC number cannot be played simultaneously

* : Tones which use two voices

<— : Same sound as in STANDARD SET 1

• • • : No sound

GENERAL PRESET PARAMETERS

The following parameters are stored under the General Preset buttons ([1]-[8]):

[TONE] Parameters
All

[SOLO] Parameters
All

Drawbar Parameters
All except Drawbar positions for [CURRENT DRAWBAR]

[MIDI] Parameters (UPPER/LOWER/BASS)
All

[DRAWBAR VIB] Parameters
All (UPPER and LOWER values are identical)

BASS [SUSTAIN] Parameters
All

[ORGAN TREM] Parameters
All

[DRAWBAR CLICK] Parameters
All

[DRAWBAR DISTORT] Parameters
All

[CROSSFADE] Parameters
All

[TRANSPOSE] Parameters
All

[GENERAL REVERB] Parameters
All

[SYNTH CHORUS] Parameters
All

[MANUAL DRUMS] Parameters
All

[KEYBD BASS] Parameters
All

[VOICING] Parameters
All

[AUDIO] Parameters
- Audio Dbar Rev Send
- Audio Xrot Rev Send
- Audio Xrot Rotary Sig
- Audio Xrot Main Sig

[CONTROLS] Parameters
All

[UTILITY] Parameters
- Pedal Cntrl
- Utility Int Exp
- Utility Ext Exp

In addition, of course, the actual value of all buttons are stored in the General Presets, except for [TRANSPOSE], [TONE 1/TONE 2], the General Presets themselves, [SET] and [MEMORY], plus all the buttons in the EDIT and FUNCTIONS sections.

GLOBAL PARAMETERS

The following parameters are stored as Global data:

[MEMORY] Select Parameters
All

[ROTARY] Parameters
All

[FAST/SLOW] Parameters
All

[PRESETS] Parameters
- Reset Lock
- Memory Lock

[AUDIO] Parameters
- Aux Pad L/R
- Aux Gain
- Aux Left Spkr L/R
- Aux Left Line L/R
- Aux Left DBar L/R
- Aux Left Org L/R
- Aux Left RevSnd
- Aux Right Spkr L/R
- Aux Right Line L/R
- Aux Right DBar L/R
- Aux Right Org L/R
- Aux Right RevSnd
- Syn Bass
- Syn Treble
- Syn Spkr Mix
- Syn Line Mix
- Syn Out Level
- Org Spkr Mix
- Org Line Mix
- Org Out Level
- DBar Spkr Mix
- DBar Line Mix
- DBar Out Level
- DBar Sig Switch
- DBar Freq Resp
- XRot Out Level
- XRot Aux Mix
- Rev Return Org Out
- Rev Return DBar Out
- Rev Return Spkr Mix
- Rev Return Line Mix
- DB15 Mix LPF
- DB15 Mix Sel

[MIDI] Parameters (FUNCTIONS Section)
All

[UTILITY] Parameters
- LCD Contrast
- Panel Lamp
- Sys Lock
- Upper Sens
- Lower Sens
- Pedal Sens

[SEQ] Parameters
- Volume
- Roland Setup Rules
- Map
- UPPER/LOWER/BASS MIDI playback port
- UPPER/LOWER/BASS MIDI playback channels

SOFTWARE UPDATES

The W-5000's operating (system) software can be updated from the disk drive. Software may be updated from time to time to provide improvements or to add new features.

Your instrument was shipped with a 'System Disk' that contains the version of software installed in your unit. Therefore, initially there is no need to update your system software. However, you should keep the latest System Disk as a backup in the event that you encounter a problem. If your W-5000 ever requires servicing, it's important that you have the latest System Disk available for the service technician.

To update your system software, please follow the simple procedure outlined below. **Your W-5000 should be up and running before you begin.** If you have any questions, please contact your Rodgers dealer.

Ê Insert the System Disk into the disk drive.
Wait until the display no longer reads 'Loading Floppy (or Internal) Piston Memory...'

Ë Press the [UTILITY] button in the FUNCTIONS section (just under the LCD).

Ì Press the [NEXT] button until the words 'Utility Sys Protect' appear in the LCD.

Í Press the [+] or [-] button until the LCD reads 'Utility Sys Protect: Off'.

Î Press the [NEXT]/[PREVIOUS] buttons as necessary until the words 'Utility System Update (+)' appear.

Ï Press the [+] button to update the system software.

During the process, the LCD will display a percentage of completion (from 0% -- 100%) while the word 'Formatting...' is also displayed. Then the drive will access the disk and again a percentage of completion (0% -- 100%) will be displayed. This time the word 'Reading...' will appear.

When the process is complete, the display will read 'System Updated, Rebooting...'. At this point, the instrument will reset itself. Do not remove the disk until the reboot is complete. When you do remove the floppy disk, the display will read 'Loading Internal Piston Memory...' for a few seconds. You can now play your W-5000.

MIDI IMPLEMENTATION

MIDI Commands (Other Than Notes) Transmitted On Master Channels:

Continuous Assignable Controllers:

Name	CC (Hex)	NRPN (Hex)
BENDER	Bender (En vv vv) on lwr mst chn	
MOD WH	CC 01 on lwr mst chn	
AFTERT	Chn aftertouch (Dn vv) on lwr mst chn	
EXP	CC 0B/CC07 on lwr mst chn	
ExtEXP	CC 04 on lwr mst chn	
USER [1] SLD		NRPN 02:00 on lwr mst chn
USER [2] SLD		NRPN 02:01 on lwr mst chn

Other Continuous Controllers:

Name	NRPN (Hex)
DB16	NRPN 02:10 on upr/lwr/ped mst chn
DB513	NRPN 02:11 on upr/lwr/ped mst chn
DB8	NRPN 02:12 on upr/lwr/ped mst chn
DB4	NRPN 02:13 on upr/lwr/ped mst chn
DB223	NRPN 02:14 on upr/lwr/ped mst chn
DB2	NRPN 02:15 on upr/lwr/ped mst chn
DB135	NRPN 02:16 on upr/lwr/ped mst chn
DB113	NRPN 02:17 on upr/lwr/ped mst chn
DB1	NRPN 02:18 on upr/lwr/ped mst chn
DBPerc4	NRPN 02:19 on upr mst chn
DBPerc223	NRPN 02:1A on upr mst chn
VolUprT1	NRPN 02:20 on upr mst chn
VolUprT2	NRPN 02:21 on upr mst chn
VolUprSolo	NRPN 02:22 on upr mst chn
VolLwrT1	NRPN 02:20 on lwr mst chn
VolLwrT2	NRPN 02:21 on lwr mst chn
VolLwrSolo	NRPN 02:22 on lwr mst chn
VolBassT1	NRPN 02:20 on ped mst chn
VolBassT2	NRPN 02:21 on ped mst chn

Switched Assignable Controllers:

Name	CC (Hex)	NRPN (Hex)
IntFS1	CC 40 on lwr mst chn	
IntFS2	CC 43 on lwr mst chn	
ExtFS	CC 42 on lwr mst chn	
Rotary S/F		NRPN 02:50 on lwr mst chn
Pedal Notes		NRPN 02:60 on lwr mst chn

Other Switched Controllers:

Name	CC (Hex)
Bank MSB	CC 00 on lwr mst chn if GS piston memory mode
Bank LSB	CC 20 on lwr mst chn if GS piston memory mode

Prg#s Transmitted:

Only transmitted on Lwr Master Channel if Lwr Master Chn Input Filter is not:	
PC=	Filter Program Changes (incl. CC 0/CC 32)
PC+CC =	Filter Program Changes + Control Changes
NOTE+PC=	Filter Notes + Program Changes (incl. CC 0/CC 32)
PC 1-8	Selects General Preset
PC 20	Selects General Cancel
PC 31	Selects Memory 1 (if GS piston memory mode)
PC 32	Selects Memory 2 (if GS piston memory mode)

MIDI Commands (Other Than Notes) Received On Master Channels:

Continuous Assignable Controllers:

Name	CC (Hex)	NRPN (Hex)
BENDER	Bender (En vv vv) on any mst chn	
MOD WH	CC 01 on any mst chn	
AFTERT	Chn aftertouch (Dn vv) on any mst chn	
EXP	CC 0B/CC 07 on any mst chn	
ExtEXP	CC 04 on any mst chn	
USER [1] SLD		NRPN 02:00 on any mst chn
USER [2] SLD		NRPN 02:01 on any mst chn

Other Continuous Controllers:

Name	NRPN (Hex)
DB16	NRPN 02:10 on upr/lwr/ped mst chn
DB513	NRPN 02:11 on upr/lwr/ped mst chn
DB8	NRPN 02:12 on upr/lwr/ped mst chn
DB4	NRPN 02:13 on upr/lwr/ped mst chn
DB223	NRPN 02:14 on upr/lwr/ped mst chn
DB2	NRPN 02:15 on upr/lwr/ped mst chn
DB135	NRPN 02:16 on upr/lwr/ped mst chn
DB113	NRPN 02:17 on upr/lwr/ped mst chn
DB1	NRPN 02:18 on upr/lwr/ped mst chn
DBPerc4	NRPN 02:19 on upr mst chn
DBPerc223	NRPN 02:1A on upr mst chn
VolUprT1	NRPN 02:20 on upr mst chn
VolUprT2	NRPN 02:21 on upr mst chn
VolUprSolo	NRPN 02:22 on upr mst chn
VolLwrT1	NRPN 02:20 on lwr mst chn
VolLwrT2	NRPN 02:21 on lwr mst chn
VolLwrSolo	NRPN 02:22 on lwr mst chn
VolBassT1	NRPN 02:20 on ped mst chn
VolBassT2	NRPN 02:21 on ped mst chn

Switched Assignable Controllers:

Name	CC (Hex)	NRPN (Hex)
IntFS1	CC 40 on any mst chn	
IntFS2	CC 43 on any mst chn	
ExtFS	CC 42 on any mst chn	
Rotary S/F		NRPN 02:50 on any mst chn
Pedal Notes		NRPN 02:60 on any mst chn

Other Switched Controllers:

Name	CC (Hex)	CC Description
Bank MSB	CC 00	on any mst chn if GS piston memory mode
Bank LSB	CC 20	on any mst chn if GS piston memory mode

Prg#s Transmitted:

Only received on any Master Channel if that Master Chn Input Filter is not:	
PC=	Filter Program Changes (incl. CC 0/CC 32)
PC+CC=	Filter Program Changes + Control Changes
NOTE+PC=	Filter Notes + Program Changes (incl. CC 0/CC 32)
PC 1-8	Selects General Preset
PC 20	Selects General Cancel
PC 31	Selects Memory 1 (if GS piston memory mode)
PC 32	Selects Memory 2 (if GS piston memory mode)

MIDI Commands (Other Than Notes) That Appear In Native Sequences:

Standard MIDI Controls:

Name	CC (Hex)	Parameters
Program Bank	CC 00	0..127
Glide Time	CC 05	0..127, as defined by GS module
Volume	CC 07	0..127 squared
Pan	CC 0A	0..127 is full left to full right
Expression	CC 0B	0..127 squared
Program Map	CC 20	0..127
Sustain Switch	CC 40	0 is off, 127 is on
Glide Switch	CC 41	0 is off, 127 is on
Sostenuto Switch	CC 42	0 is off, 127 is on
Soft Switch	CC 43	0 is off, 127 is on
Reverb Level	CC 5B	0..127 squared
Chorus Level	CC 5D	0..127 squared
Pitch PB	0..0x3FFF is -12	12 semitone range
Program Number	PC	0..127
All Sounds Off	CC 78	0..127

(NOTE: PB is used both for VOICING detune and for bender)

Standard Registered Parameters (both bytes used):

Pitch Bend Range	NRPN 00:00 value is always 0x0C00

GS Non-Registered Parameters / Control Changes (only MSB used):

Name	CC (Hex)	NRPN (Hex)	Parameters
Vibrato Rate		NRPN 01:08	14..114 is bipolar adjustment
Vibrato Depth		NRPN 01:09	14..114 is bipolar adjustment
Vibrato Delay		NRPN 01:0A	14..114 is bipolar adjustment
Cutoff		NRPN 01:20	14..114 is bipolar adjustment
Resonance		NRPN 01:21	14..114 is bipolar adjustment
Attack		NRPN 01:63	14..114 is bipolar adjustment
Decay	CC 46	NRPN 01:64	14..114 is bipolar adjustment
Release	CC 48	NRPN 01:66	14..114 is bipolar adjustment

Rodgers Non-Registered Parameters / Control Changes:

Name	CC (Hex)	NRPN (Hex)	NRPN Parameters
Hz Detune	CC 5E	NRPN 03:00	0..127 is -6.4..6.3Hz
Velocity Offset	CC 1E	NRPN 03:02	0..127 is bipolar adjustment
Velocity Sensitivity	CC 1F	NRPN 03:03	0..127 is bipolar adjustment
Aux Volume		NRPN 03:04	0..127 is off to max

Rodgers External Channel Parameters (external channels only):

Name	NRPN (Hex)	NRPN Parameters
MIDI Port Select	NRPN 03:08	0..1
MIDI Channel Select	NRPN 03:09	0..15

Rodgers Drawbar Non-Registered Parameters / Control Changes (drawbar channels only):

Name	CC (Hex)	NRPN (Hex)	Parameters
16' Drawbar	CC 2C	NRPN 03:10	0..127 is off to maximum
8' Drawbar	CC 2D	NRPN 03:11	0..127 is off to maximum
5-1/3' Drawbar	CC 2E	NRPN 03:12	0..127 is off to maximum
4' Drawbar	CC 2F	NRPN 03:13	0..127 is off to maximum
3-1/5' Drawbar	CC 30	NRPN 03:14	0..127 is off to maximum
2-2/3' Drawbar	CC 31	NRPN 03:15	0..127 is off to maximum
2' Drawbar	CC 32	NRPN 03:16	0..127 is off to maximum
1-3/5' Drawbar	CC 33	NRPN 03:17	0..127 is off to maximum
1-1/3' Drawbar	CC 34	NRPN 03:18	0..127 is off to maximum
1' Drawbar	CC 35	NRPN 03:19	0..127 is off to maximum
16' Percussion Drawbar	CC 36	NRPN 03:20	0..127 is off to max
8' Percussion Drawbar	CC 37	NRPN 03:21	0..127 is off to max
5-1/3' Percussion Drawbar	CC 38	NRPN 03:22	0..127 is off to max
4' Percussion Drawbar	CC 39	NRPN 03:23	0..127 is off to max
3-1/5' Percussion Drawbar	CC 3A	NRPN 03:24	0..127 is off to max
2-2/3' Percussion Drawbar	CC 3B	NRPN 03:25	0..127 is off to max
2' Percussion Drawbar	CC 3C	NRPN 03:26	0..127 is off to max
1-3/5' Percussion Drawbar	CC 3D	NRPN 03:27	0..127 is off to max
1-1/3' Percussion Drawbar	CC 3E	NRPN 03:28	0..127 is off to max

Rodgers Drawbar Non-Registered Parameters / Control Changes (drawbar channels only): (Cont.)

Name	CC (Hex)	NRPN (Hex)	Parameters
1' Percussion Drawbar	CC 3F	NRPN 03:29	0..127 is off to max
Composite Drawbar #0	CC 28	NRPN 03:30	0..127 is off to maximum
Composite Drawbar #1	CC 29	NRPN 03:31	0..127 is off to maximum
Composite Drawbar #2	CC 2A	NRPN 03:32	0..127 is off to maximum
Composite Drawbar #3	CC 2B	NRPN 03:33	0..127 is off to maximum
Percussion Time	CC 22	NRPN 03:38	0..127 (instant~long)
Percussion Mode	CC 23	NRPN 03:39	0..3
Percussion Recovery Time	CC 24	NRPN 03:3A	0..127
Percussion Click Level		NRPN 03:3B	0..127
Percussion Click Time		NRPN 03:3C	0..127
Percussion Click Filter Cutoff	CC 21	NRPN 03:4C	0..127
Overdrive Positive Rounding	CC 54	NRPN 03:40	0..127
Overdrive Negative Rounding	CC 55	NRPN 03:41	0..127
Overdrive Positive Peaking	CC 56	NRPN 03:42	0..127
Overdrive Negative Peaking	CC 57	NRPN 03:43	0..127
Overdrive Positive Clipping	CC 58	NRPN 03:44	0..127
Overdrive Negative	CC 59	NRPN 03:45	0..127

Clipping			
Overdrive Gain	CC 0C	NRPN 03:46	0..127
Overdrive Level	CC 0D	NRPN 03:47	0..127
Overdrive On/Off	CC 50	NRPN 03:48	0 is off, 127 is on
Rotary On/Off		NRPN 03:50	0 is off, 127 is on
Rotary Slow/Fast	CC 51	NRPN 03:51	0 is slow, 127 is fast
Vibrato Type		NRPN 03:52	0..
Vibrato Depth	CC 09	NRPN 03:53	0..50
Vibrato Phase	CC 02	NRPN 03:54	0..120
Vibrato Level	CC 03	NRPN 03:55	0..127
Vibrato Dry Level	CC 04	NRPN 03:56	0..127
Vibrato Rate	CC 08	NRPN 03:57	0..127
Pre-Rotary Drawbar Reverb	CC 5A	NRPN 03:58	0..99
Rotary Effects Send	CC 5B		0..99

Rodgers Effects Non-Registered Parameters / Control Changes:

Name	CC (Hex)	NRPN (Hex)	Parameters
Chorus Global Level	CC 10	NRPN 03:60	0..127
Chorus Send to Reverb	CC 11	NRPN 03:61	0..127
Chorus Low-Pass	CC 12	NRPN 03:62	0..7
Chorus Feedback	CC 13	NRPN 03:63	0..127
Chorus Delay	CC 14	NRPN 03:64	0..127
Chorus Rate	CC 15	NRPN 03:65	0..127
Chorus Depth	CC 16	NRPN 03:66	0..127
Reverb Global Level	CC 18	NRPN 03:68	0..127
Reverb Send to Chorus	CC 19	NRPN 03:69	0..127
Reverb Low-Pass	CC 1A	NRPN 03:6A	0..7
Reverb Feedback	CC 1B	NRPN 03:6B	0..127
Reverb Delay	CC 1C	NRPN 03:6C	0..127
Reverb Type	CC 1D	NRPN 03:6D	0..7

Rodgers Classic Organ Non-Registered Parameters (Tone chns only):

Name	NRPN (Hex)	Parameters
Trem Depth	NRPN 03:70	0..127
Trem Depth Change Time	NRPN 03:71	0..127
Trem Rate	NRPN 03:72	0..127
Trem Rate Change Time	NRPN 03:73	0..127

Channel Assignments

Internal SMF Format 0; sequencer fixed layer-to-channel assignments are:

Channel	Layer	Channel	Layer
1	Upper Solo	9	Lower DBar
2	Upper Tone1	10	Manual Drums
3	Upper Tone2	11	Lower MIDI
4	Upper DBar	12	Not Used
5	Upper MIDI	13	Bass Tone 1
6	Lower Solo	14	Bass Tone 2
7	Lower Tone1	15	Bass DBar
8	Lower Tone2	16	Bass MIDI

MIDI Commands (Other Than Notes) Transmitted On U/L/B MIDI Channels:

Standard MIDI Controls:

Name	CC (Hex)	Parameters
Program Bank	CC 00	0..127
Glide Time	CC 05	0..127, as defined by GS module
Volume	CC 07	0..127 squared
Pan	CC 0A	0..127 is full left to full right
Expression	CC 0B	0..127 squared
Program Map	CC 20	0..127
Sustain Switch	CC 40	0 is off, 127 is on
Glide Switch	CC 41	0 is off, 127 is on
Sostenuto Switch	CC 42	0 is off, 127 is on
Soft Switch	CC 43	0 is off, 127 is on
Reverb Level	CC 5B	0..127 squared
Chorus Level	CC 5D	0..127 squared
Pitch PB	0..0x3FFF is -12..12 semitone range	
Program Number	PC	0..127

(NOTE: PB is used both for VOICING detune and for bender)

Standard Registered Parameters (both bytes used):

Name	NRPN (Hex)	Parameters
Pitch Bend Range	NRPN 00:00	value is always 0x0C00

[UTILITY] Master Tuning	NRPN 00:01	0..0x3FFF is -1..1 semitone range

GS Non-Registered Parameters (only MSB used):

Name	NRPN (Hex)	Parameters
Vibrato Rate	NRPN 01:08	14..114 is bipolar adjustment
Vibrato Depth	NRPN 01:09	14..114 is bipolar adjustment
Vibrato Delay	NRPN 01:0A	14..114 is bipolar adjustment
Cutoff	NRPN 01:20	14..114 is bipolar adjustment
Resonance	NRPN 01:21	14..114 is bipolar adjustment
Attack	NRPN 01:63	14..114 is bipolar adjustment
Decay	NRPN 01:64	14..114 is bipolar adjustment
Release	NRPN 01:66	14..114 is bipolar adjustment

GS System Exclusive Parameters:

All consist of F0 41 10 42 12 aa aa aa dd ... kk F7, where the three "aa" bytes are an address, the "dd" bytes are data, and "kk" is the checksum needed to make the 7-bit sum of all the "dd" bytes (not the "aa" bytes) come out to zero or 80. The second address byte relates to the MIDI channel number according to the following table:

Channel:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	(decimal)
Address:	11	12	13	14	15	16	17	18	19	10	1A	1B	1C	1D	1E	1F	(hex)

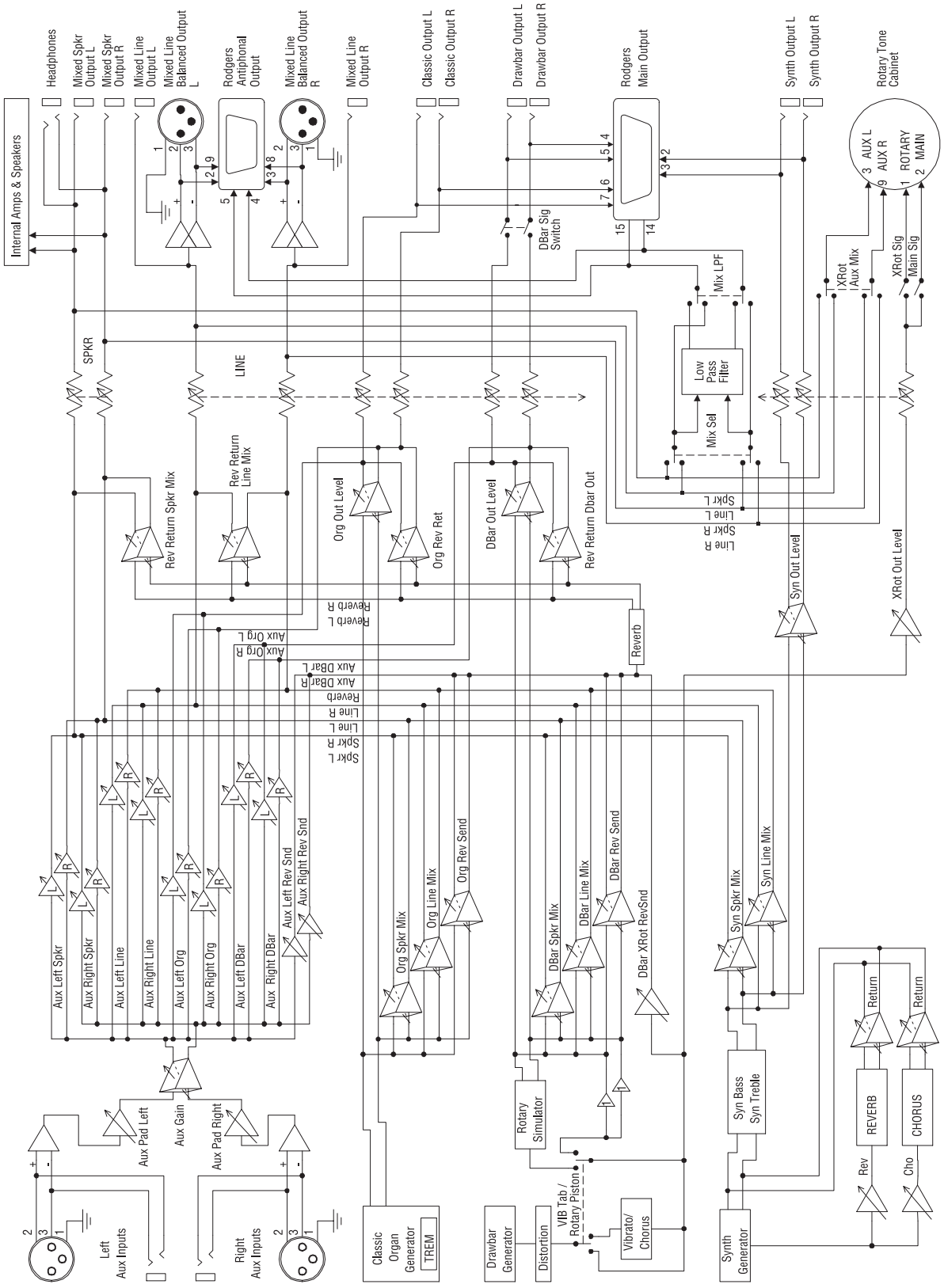
The value is usually a single byte, but for Hz Detune, the 8-bit value is split into two nibbles and transmitted MSN first.

Hz Detune	40 1b 17 0v 0v	08..F8 nibblized is -12~12 Hz
Velocity Offset	40 1b 1B vv	0..127 is bipolar adjustment
Velocity Sensitivity	40 1b 1A vv	0..127 is bipolar adjustment
Chorus Global Level	40 1b 3A vv	0..127
Chorus Send to Reverb	40 1b 3F vv	0..127
Chorus Low-Pass	40 1b 39 vv	0..7
Chorus Feedback	40 1b 3A vv	0..127
Chorus Delay	40 1b 3C vv	0..127
Chorus Rate	40 1b 3D vv	0..127
Chorus Depth	40 1b 3E vv	0..127
Reverb Global Level	40 1b 33 vv	0..127
Reverb Send to Chorus	40 1b 36 vv	0..127
Reverb Low-Pass	40 1b 32 vv	0..7
Reverb Feedback	40 1b 35 vv	0..127
Reverb Delay	40 1b 34 vv	0..127
Reverb Type	40 1b 31 vv	0..7

MIDI Commands (Other Than Notes) Received On MIDI Drum In Port/Channel:

Name	CC (Hex)	NRPN (Hex)	Parameters
Program Change	PC		
Program Bank	CC 00		
Program Map	CC 20		
Volume	CC 07		
Pan	CC 0A		
Expression	CC 0B		
Reverb Send	CC 5B		
Chorus Send	CC 5D		
Chorus Pitch		NRPN 18:xx	/
TVA Level		NRPN 1A:xx	/ where ‘xx’ is the note
Pan		NRPN 1C:xx	/ number of individual
Reverb Send		NRPN 1D:xx	/ Drum Sounds
Chorus Send		NRPN 1E:xx	/

AUDIO BLOCK DIAGRAM



SPECIFICATIONS

KEYBOARDS	UPPER	: 61 note organ style, velocity sensitive
	LOWER	: 76 note piano style, velocity sensitive, aftertouch sensitive
	PEDALS	: 25 note flat fanned style, velocity sensitive
SPEAKING BUTTONS	UPPER	: 23
	LOWER	: 23
	BASS	: 14
DRAWBARS	UPPER	: 9 DBs (mechanical) + 2 Percussion [PERC] DBs (mechanical)
	LOWER	: 9 DBs (mechanical) + 2 Percussion [PERC] DBs (in software)
	BASS	: 4
ASSIGNABLE CONTROLLERS	Expression Pedal (with 2 kick switches), External Expression input, External Footswitch input, Pitch Bender (with Modulation), 2 USER Drawbars	
VOLUME BALANCE SLIDERS	UPPER	: 3
	LOWER	: 3
	BASS	: 2
OSCILLATORS	SYNTH	: 128
	CLASSIC ORGAN	: 32
	DRAWBAR	: 96
DIGITAL EFFECTS	Reverb, Chorus (Synth Tones only), Drawbar Vibrato, Drawbar Distortion, Drawbar Rotary	
PRESETS	2 Memory Banks of 8 Presets, plus [CANCEL] button	
STORAGE	3.5" Floppy Disk Drive (HD or DD disks)	
SEQUENCER	Single pass, no editing. Note storage limited by disk capacity (720K or 1.44Mb).	
AUDIO SYSTEM	Internal Amplifier	: 160 watts (40W (x 2) Full Range, 80W Subwoofer)
	Internal Speakers	: 3" (x 2) Tweeters, 6.5" (x 2) Full Range, 10" Subwoofer
POWER REQUIREMENT	100V, 120V, 230V, or 240V AC (220 Watts).	
CONSOLE	Solid Oak or Ash, plus engineered wood materials with Oak veneers. Walnut (dark) finish Black metal trim Pedalboard, Lid and Bench included	
OVERALL DIMENSIONS	Assembled	: approx. 51.5 (W) x 38.5 (D) x 54.5 (H) inches
		: approx. 1308 (W) x 978 (D) x 1385 (H) mm (includes Pedalboard and Music Rest)
	Boxed	: approx. 57 (W) x 35 (D) x 46 (H) inches
		: approx. 1448 (W) x 889 (D) x 1169 (H) mm
WEIGHT	Assembled	: approx. 460lbs (209Kg)
	Shipping	: approx. 500lbs (227Kg)

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For Germany

Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das

RODGERS W-5000

(Gerät, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der BMPT-AmtsblVfg 243/1991 funk-entstört ist. Der vorschriftsmäßige Betrieb mancher Geräte (z. B. Meßsender) kann allerdings gewissen Einschränkungen unterliegen. Beachten Sie deshalb die Hinweise in der Bedienungsanleitung.

Dem Zentralamt für Zulassungen im Fernmeldewesen wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf die Einhaltung der Bestimmungen eingeräumt.

Rodgers Instruments LLC

1300 N.E. 25th Ave., Hillsboro, OR 97124, USA

(Name und Anschrift des Herstellers/Importeurs)

For the USA

FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modifications to this system can void the user's authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC Class B Limits.

For Canada

CLASS B **NOTICE**

This digital apparatus does not exceed the Class B limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

CLASSE B **AVIS**

Cet appareil numérique ne dépasse pas les limites de la classe B au niveau des émissions de bruits radioélectriques fixés dans le Réglement des signaux parasites par le Ministère Canadien des Communications.

INSTRUMENTS LLC

1905-530C